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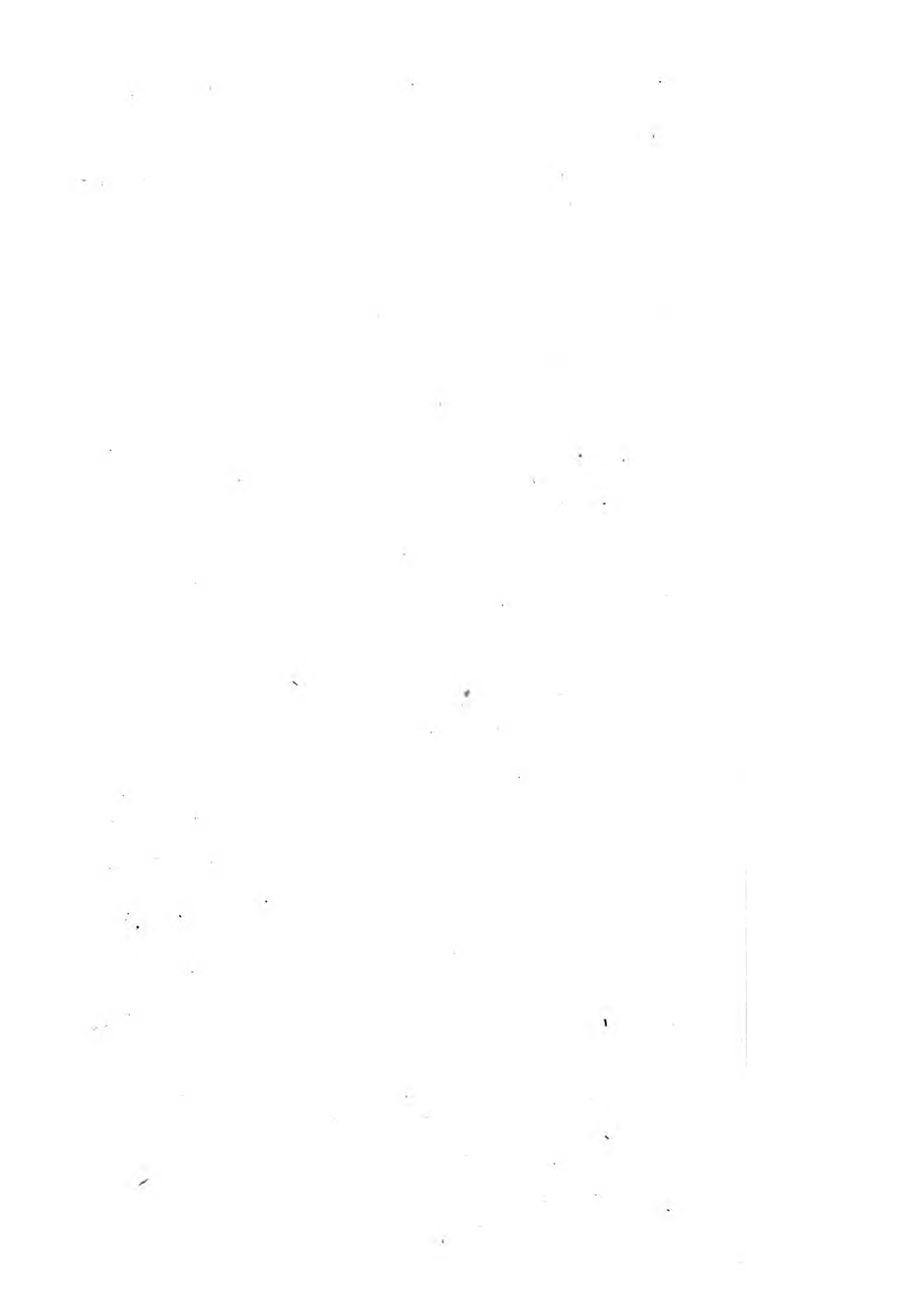
A. Bourne, M.D.

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THE
LONDON MEDICAL AND PHYSICAL
JOURNAL;

CONTAINING
ORIGINAL CORRESPONDENCE of EMINENT PRACTITIONERS,
AND THE
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MEDICINE, SURGERY, CHEMISTRY, PHARMACY, BOTANY,
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VOL. XXXV.

FROM JANUARY TO JUNE, 1816.



Et quoniam variant morbi, variabimus artes;
Mille mali species, mille salutis erunt.

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“ For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work to which the Faculty in EUROPE and AMERICA were under deeper obligations than to the Medical and Physical Journal of London, now forming a long, but an invaluable, series.”—RUSH.

For the London Medical and Physical Journal.

Case of large incysted Tumour connected with the Kidneys;
by EDWARD JACKSON, Esq.

I. B., a poor labouring man, fifty-six years of age, in the month of May last, complained of great pain in the belly, which came on suddenly as he was returning home after his day's work; his pulse at this time was quick, hard, and strong, and the tongue white and dry; twelve ounces of blood were immediately taken from the arm, and some purgative medicines, consisting of pills of extract of colocynth with calomel and a solution of sulphate of magnesia in mint-water, administered. The medicines operated very speedily, and on the following morning the pain had very much abated; in a few days, however, it returned, and recourse was had to the same means, which had been so useful in subduing the first attack, and with nearly the same result; the pain, however, though considerably lessened, was by no means entirely done away, and from this time the disease put on a more chronic appearance. A dull and heavy pain was constantly felt in the part first affected, and in the course of a short time a swelling was perceived on the left side of the abdomen, a little above the umbilicus, which was hard and tender to the touch; this kept gradually increasing till the patient's death, (a period of four months), at which time it was of an enormous size, its upper extremity touching the sternum, and its lower resting upon the left thigh. During the progress of this disease there was but little variation in the symptoms, the pain in the affected part was constant, though not very severe; the tumour gradually increased in size, and was hard and unyielding to the touch; the excretions were healthy in appearance, but the bowels were seldom or never relieved without the help of aperient medicines; the urine was rather small in quantity;

the appetite moderately good; the tongue, which in the first instance had been dry and furred, now became moist and clean at the edges; the legs and feet had, at one time, been œdematous; but this symptom disappeared as soon as he took to his bed; as the disease advanced the appetite decreased, and eventually the stomach lost the power of retaining food, almost every thing being vomited up soon after it had been swallowed. For some weeks previous to his death he was supported by very minute quantities of mint-tea or weak spirit and water; the body of course became exceedingly emaciated.

The mode of treatment consisted of general and topical bleeding, blistering, aperient medicines, alteratives, with opiates, diuretics, and mercurial frictions; but it did not appear that any of these means had the slightest effect in checking the progress of the complaint, which kept gradually increasing till death put an end to the poor man's sufferings.

On inspecting the body a very large tumour was found, apparently occupying the whole of the abdominal cavity, in shape and appearance very much resembling a large bullock's heart, the veins on its surface being very similar to the coronary vessels of that organ; all the viscera of the abdomen were completely obscured by this tumour, with the exception of the colon, which lay obliquely on its surface and adhered very firmly to it; it became necessary, therefore, to empty the tumour of its contents, in order to ascertain its true nature and character. A small puncture being made in its most prominent part, a quantity of dark coloured fluid was discharged, which was at first thin and transparent, but presently became viscid and opaque; and eventually some pieces of a substance resembling sponge, were brought up in each basin full of the fluid. Of this fluid fifteen pints were collected and measured, and, reckoning what was lost on the tumour, being first opened, the quantity could not be less than two gallons; it was of a peculiar odour, somewhat resembling blood that has been a few days extravasated, and had an unctuous and rather an adhesive feel. On examining the parts, it was immediately evident that the seat of disease was in the kidney, and that the sac was composed of the proper membrane of that gland covered by peritoneum, to which it firmly adhered, forming a compact and strong bag about one-eighth of an inch in thickness.

The ureter was found entering the sac at its lower and posterior part, but was unfortunately detached in attempting to raise the tumour from its connection with the loins. It appeared of the ordinary size, and healthy in its whole course,

course, but the extremity next the kidney was plugged up by a firm coagulum of blood.

The interior of the sac was smooth, except at the bottom, where it was partly covered by the loose spongy substance before mentioned, which was easily separated by the fingers; the opposite kidney was of the usual size, and the rest of the viscera perfectly healthy, though the liver appeared smaller and of a paler colour than usual.

Want of time would not permit me to make a more minute examination, and it is to be lamented that the task of investigating and describing this extraordinary case did not fall to abler hands.

I have since learnt that a few weeks previous to the commencement of this poor man's illness, he received a severe blow on the loins by the handle of a pick-axe, but it did not appear to be productive of much inconvenience at the time, and it is worthy of remark, that in the whole course of his illness he had not any symptom which could lead me to suspect the kidney to be the seat of disease.

Guildford;

November 10, 1815.

For the London Medical and Physical Journal.

Remarks on Dr. Kinglake's Observations on the Obstetric Practice; by J. ATKINSON, Esq. Member of the Royal College of Surgeons in London.

IN the following observations I shall endeavour to divest myself as much as possible of all selfish considerations, being wishful to support the sacred cause of truth and the interests of humanity. If, upon an impartial examination, the obstetric practice shall be found to be derogatory to the dignity of science, or inimical to the dictates of genuine philanthropy, I shall not hesitate to abandon it (however lucrative) to illiterate midwives, or to those mercenary practitioners who imagine that the acquisition of riches can compensate for the loss of that peace of mind which should attend any gross deviation from the laws of virtue and honor.

With the greatest deference to the high professional character of Dr. Kinglake, I shall now proceed to examine his observations, and to substantiate my own upon facts which have occurred in my own practice.

Dr. Kinglake observes, "To suppose an inadequacy in Nature to accomplish every requisite respecting the birth of the human species, is to imagine that chance, and not consummate wisdom, is concerned in this most important event."

4 Mr. Atkinson's *Remarks on Dr. Kinglake's Observations*

Of the supreme excellence, œconomy, and beauty of Nature, he will be the most thoroughly convinced who examines her the closest; nevertheless it cannot be denied, that her operations would often be incomplete if left solely to the influence of the immediate causes that govern them. For this purpose the human intellect is often necessarily brought in aid, as in the cultivation of the ground, the removing weeds or excrescences which would otherwise prevent or retard fructification; and in destroying noxious animals which would annoy the senses, or interrupt the well-being of the more important orders of organized beings; also, in the prevention of diseases, no one will dispute the advantages of vaccination; and, I think, it is easy to prove, that in no instance is the judicious interference of art more necessary than in alleviating the distresses or averting the dangers incident to human parturition.

It is true, indeed, the inferior animals require little or no aid, for the following plain reasons:—

1st, The heads of most animals are not nearly so spacious in proportion as the human head, in which it is well known that the brain is particularly large.

2dly, In animals the pelvis is placed horizontally, and therefore may conveniently be made larger; whereas in the human subject it is nearly vertical, which position must require a narrower form, in order that it may support its contents till the end of utero-gestation, otherwise prolapsus uteri and frequent abortions would be the consequence.

3dly, Animals are in a state of nature.

For these reasons, it is evident that human parturition must frequently be much more difficult and dangerous than that of animals, and particularly if we take into consideration that the former often do not begin to bear children till after the period intended by nature.

Dr. Kinglake thinks it would be better to confine man-midwifery to absolute occasions for operative aid. "Then," says he, "the art would be directly efficient." Thus he admits there are difficult cases, (notwithstanding the efficiency of nature,) which call for the assistance of art; but then, so far as instrumental aid is required, he limits to the three following conditions:—1st, wrong presentation; 2d, hæmorrhages; 3d, convulsions. It is well known, however, to every experienced accoucheur, that many other cases may and do occur, which imperiously require instrumental aid. Suppression of urine requires the introduction of the catheter; too large a size of the child's head requires the forceps or perforator. About four years ago, a lady, aged 40, had been attended, during her first labour, by a midwife,
1 who

who suffered her to remain undelivered (though she had the most violent pains) for at least twenty-four hours after the ear of the child might be felt, and for that space of time the head had not moved perceptibly nearer the os externum. When I saw her, the pains had nearly ceased; pulse extremely weak, and countenance ghastly. After being convinced that nature was totally inadequate to the task, the operation of embryotomy was performed by myself and another practitioner, as the only means of giving the patient the smallest chance: in this way she was soon delivered of a very large child. Had it been done before the powers of life were exhausted, there can be little doubt that her life would have been saved; but, unfortunately, it was too late—she expired the following day. This is the only fatal case I have witnessed after this operation, although I have performed it several times. How does this case accord with the following assertion of the doctor:—"Bad cases in midwifery are announced by features not to be mistaken; and, even on those occasions, the urgency is not so great, but there will be time sufficient to procure such assistance as may be required." It is, however, certain, that practitioners have frequently to regret that they have been called in too late, even in the present state of practice; but what would be the consequence, if the art was confined entirely to females, as no one can doubt that, besides a practical acquaintance with natural labour, an intimate knowledge of the situation of the parts is absolutely necessary, in judging of the case, or in affording relief in preternatural cases.

I shall now endeavour to prove the necessity of an accoucheur's attendance in all cases of midwifery. A medical man's attendance is principally required, in order to watch and be immediately apprised of any event that may require his assistance, as hæmorrhage, suppression of urine, preternatural presentation, &c. as these are much more easily remedied at the beginning, than after a lapse of time. About the commencement of my practice, a woman at Halton was attended by a midwife: a violent hæmorrhage came on before the head of the child was expelled, which had been aggravated by placing the patient near a large fire, and giving her a quantity of spirituous liquors, a custom by no means unfrequent among country midwives. The flooding became so violent, that the midwife ran out of the house, and said she durst not stay, but desired my immediate attendance. I happened at that time to be in the village: when I saw her, the blood was flowing from her in a continued stream, and the floor of the room was almost covered. By immediately extinguishing the fire, admitting a stream of cool air, and applying

6 *Mr. Atkinson's Remarks on Dr. Kinglake's Observations*

applying styptics to the pubes and surrounding parts, the discharge nearly ceased, and she was soon after delivered, though she has never recovered her former strength. I am pretty certain that, if the discharge had continued many minutes longer, it would inevitably have proved fatal.

A hæmorrhage is frequently produced by the presentation of the placenta, which, in general, is instantly suppressed by rupturing the membranes, an instance of which I witnessed not long ago, when attending a patient in Meadow-lane, in consultation with Mr. William Hey. Now, should the practice be confined to ignorant women, how seldom would a medical man be procured in time to prevent the fatal consequences of such accidents as these.

Sometimes Nature may be sufficient to accomplish the delivery, and yet, from the size of the head, the process may be so slow, as to occasion the bladder and vagina to slough; an instance of which is recorded in the London Practice of Midwifery. "In a consultation which was held in a case of this kind, it was agreed that Nature certainly would be able to deliver the woman; she, therefore, was not interfered with. She did deliver herself, but lost her life by it: she died, and that at a time when an ear was to be felt. This was certainly a case that required the use of the forceps, which would have delivered her with safety." Page 161.

It is well known, likewise, that the perinæum requires supporting, otherwise a laceration will often be the consequence, which not unfrequently renders the patient miserable for life. This, by skilful management, may, I believe, in all cases, be prevented. Sometimes the perinæum is stretched to such a degree, that it becomes as thin as paper.

An accoucheur's attendance is further necessary, to prevent the interference of ignorant persons, which is fully demonstrated by the foregoing cases. I have seen hæmorrhage induced by using too much force in separating the placenta; fevers and inflammation, by the exhibition of wine and spirits. Children have frequently been lost, when the feet have presented, by the ignorance of the midwife, in not being able to extract the head before the child was strangled; which extraction is easily effected, by introducing a finger into the mouth, and bringing the occiput forward, so as to correspond with the anatomical structure of the pelvis. Dr. Haighton mentions a case where a child's head was severed from its body by the force which a midwife used in its extraction.

A midwife is seldom competent to judge in what cases art is necessary, or how far it is proper to trust to the efforts of nature. It is not uncommon to see a patient, who has been

two or three days in labour, when the arm is the presenting part, and a vain hope has been entertained that Nature could effect the delivery, until the urgency of the symptoms, and the unaltered state of the parts, have proved that her struggles were unavailing. An intelligent practitioner would ascertain, at an early period, the nature of the case, bring down the feet, and deliver, without exposing the patient to all this unnecessary pain and danger.

I might say a great deal on the absolute necessity of art in various preternatural cases; but, as this is not questioned by the doctor, it will be unnecessary.

That Nature would, in many cases, complete the delivery with safety, there can be no doubt; but, if the following circumstances frequently occur, either for want of assistance, or by the unskilfulness of the assistant, it will justify the constant or uniform employment of well-educated men.

1st. Laceration of the perineum.

2d. Exhaustion of the strength, by undue stimulants or frightful tales.

3d. Hæmorrhage produced by mismanagement, as by separating part of the placenta by improper force; or, when accidental, of the necessity of restraining it.

4th. Bursting of the bladder, for want of a timely introduction of the catheter.

5th. Irreparable injury, by delay, in various preternatural cases.

6th. The omission of bleeding, and suitable remedies, in convulsions, puerperal fever, &c.

7th. Danger to the child, by suffering the funis to remain tight about its neck; in improperly dividing the naval string, so that the ligature shall embrace part of the intestines, or not of sufficient tightness to prevent a fatal hæmorrhage; or by a tardy or injudicious extraction of its head, when that is the part which remains last;—to say nothing about soothing the patient's mind, proper regulation of her diet, alleviation of certain symptoms by medical aid, position during labour, and many other circumstances.

Now, if the above accidents do often occur, and dangers to the patient's health and life, even in natural cases, often present themselves, which might easily be obviated by skilful management, (for the truth of which I appeal to practitioners in general,) then I think I shall have demonstrated that the practice of midwifery by scientific men is neither inconsistent with the unmolested comfort of the patient, the justice of philosophy, or the frankness of undisguised honesty.

Meadow-lane, Leeds;

Nov. 18, 1815.

For

your superintendance: it is the anxiety which I experience for its result, added to your solicitations for foreign communications on this subject, through the paper now before you, that has prompted me so far to transgress the Greek admonition *ἴσως σεαυτὸν*, as to presume to hint to you a mode of treatment, which, I trust, previous to its adoption, may bear the test, and gain the approbation of your superior judgment.

In the treatment of all diseases, the primary desideratum which obviously presents itself is the ascertainment of the causes from which they have or may have had their origin, for such an ascertainment is the *sine quâ non* of relief, and, in its absence, every remedy which is employed must be dependant on the good or bad fortune of the patient for the beneficial or deleterious result of its operations. Before, therefore, we can possibly be enabled satisfactorily to decide upon a mode of treatment, in the pursuance of which a beneficial result can be anticipated, it appears absolutely necessary that the immediate cause of those symptoms to which you so particularly allude in your detail, should, by investigation, be well ascertained.

A young gentleman, of full habit of body, now at the age of eighteen years, when betwixt four and five years old, accidentally fell to the descent of six feet from a window, and his head coming immediately into contact with a hard stone pavement, occasioned, for a short time, a violent cephalalgia.

Although, by this accident, the concussion which the brain must evidently have experienced had not the effect of producing a reaction on the part of the stomach, and thus unequivocally to characterise the disease, it is probable, from the pain which immediately supervened, and more than probable, when conjunctively weighed with the corroboration which is afforded upon a view of the symptoms which have subsequently occurred, that such an action was induced in the cerebral vessels as occasioned an undue and morbid determination of blood to the interior of the head. By the prompt exhibition of the depleting system at that period, such a disease might have been speedily annihilated; but, unfortunately for the patient, for this conceived trivial mishap, the *vis medicatrix naturæ* was considered by the parents as worthy of their confidence.

From the extreme tendency and predisposition which children possess to the natural production of this disease, independant of an exciting cause, it was not to be anticipated by those who have practically experienced it, that this morbid determination should become ameliorated, but rather that

Remarks on the Case described in our last Number. 11

that, void of any medical assistance, it would rapidly and insidiously take a deeper root.

Accordingly, after a lapse of considerable time, a difficulty in the utterance of words in conversation commenced its attendant inconveniences, being rendered the more alarming in not reasonably being attributable to any mal-formation or deficiency in the vocal organs, since, previous to that period, no such difficulty was experienced.

But the peculiar symptom to which our attention is more especially invited, and which, at this present time, has reached an alarming height, appears not to consist so much in the incapacity of the vocal organs, as in the antagonistic effects of the will to verbal utterance, originating immediately from an apprehension of the ridicule of his auditors; in consequence of an injurious degree of diffidence, and remotely from an increased sensibility on the part of the brain.

Now, the first question which is forcibly urged on this head is, from what cause does this *morbid sensibility* proceed?

The brain is an organ in a state of dependency insufficient in itself for generating ideas, or receiving impressions, but is capable of being roused to these, as to the performance of all its functions, by the application of an appropriate stimulus.

That the stimulus by which the brain is enabled to perform its several functions is *the sanguineous fluid*, is incontrovertibly ascertained by the torpidity and inaction which are uniformly experienced when that viscus suffers from a deficiency, and the sudden increase of its capacities, when a redundancy of that fluid is produced. As the blood is the stimulus by the specific operation of which the brain can retain a degree of sensibility sufficient for the pursuance of its several offices, when influenced by the presence of a certain quantity, it might be reasonably supposed that, in proportion to the magnitude of that quantity, so would the organ deviate or approach perfection; but we are experimentally taught, first, from the incoherency of our ideas during the continuance of, and the torpidity which the brain suffers subsequent to, the operation of an undue determination of blood to that viscus; and secondly, from the suspension of the animal functions during a deficiency, that the happy medium is requisite, with respect to the quantity for the sane production of its operations.

“Est modus in rebus sunt certi denique fines.”

It is therefore apparent, *à priori*, that, if an increased influx is determined to the brain, it becomes over-excited, and is, therefore, productive of *morbid sensibility*. Sup-

of an undue quantity of blood, the calibre of an artery be enlarged, as the elastic coats will admit of a further extension than would equal the natural state of its muscular fibres, that the latter will either become completely lacerated, or, if this disease continue any length of time, rendered wholly paralytic by powerful compression.

The method of treatment, therefore, which is to be adopted, to promote the cure of this disease, is, by compression, mechanically to diminish the calibres of the arteries, and prevent the passage of an undue influx of blood through them, as is the office of the muscular fibres when in health; and it is upon this principle the success of Mr. Baynton's strapping has been so unlimited, and which is preferable to any other mode, when compression can be applied. But, in the present case, as the seat of this disease is the brain, such mechanical support to the diseased vessels is inapplicable, and we must therefore have recourse to those medicines which may be considered capable of restoring the tenuity of the vessels: every thing, therefore, which tends to deplete, should be most carefully avoided, as hence result the injurious effects of blood-letting during the chronic stage of inflammation; hence the inutility of the depleting system in chronic inflammation of the tunica conjunctiva, and the speedy relief which is afforded from the application of any stimulant.

Without intruding any further on the pages of this Journal, I trust the hints which I have made on the subject will be sufficient, if approved of, to direct your mode of treatment in the present case.

For the London Medical and Physical Journal.

Case of Puerperal Fever with Dropsy, succeeded by Phlegmasia dolens, Gastritis, and spontaneous Hydrophobia.

By JAMES THACHER, M.D. of Plymouth, Massachusetts.

AN amiable and accomplished lady, aged about twenty, a native of Denmark, having married a young gentleman of this town, performed a voyage from Copenhagen, during the first months of gestation, and arrived here in Oct. 1812. The vessel was ill calculated for the voyage; no comfortable accommodations could be afforded, and by close confinement, constant exposure to wet, and frequently to the most imminent danger, Mrs. T. was subjected to sufferings which none but the firmest constitutions could sustain, and

and which required the courageous spirit of a heroine willingly to encounter. Fortunately, however, she experienced little interruption to her health, or the amusements of the polite circle, until the seventh month, when her lower extremities were severely affected with œdematous swellings, and attended with circumstances indicating depletion by the lancet. Having, in a feeble condition, advanced to the usual period, she experienced a laborious and protracted parturition, by which she was greatly exhausted, and immediately after she was seized with strong convulsions, which continued about five minutes. Every proper application was instantly resorted to, and she had no recurrence of convulsions. No unusual circumstance intervened till the fourth day after child-birth, when she was visited with coldness and shivering, severe pains over her forehead, flushings in her face, great anxiety, and restlessness. The region of the uterus and whole abdomen soon became tumefied, extremely tender and painful to the touch. To these succeeded pains in the back, hips, and sides, with laborious respiration. The lochial discharge and secretion of milk were diminished, and both were in a few days altogether suppressed; and these were followed by a total indifference about the condition and welfare of the child. The urine was turbid, and in small quantity; skin hot and dry; pulse weak, small, and about 120 in a minute; great thirst, with a dark brown tongue; prostration of strength and watchfulness. The formidable assemblage of symptoms characteristic of puerperal fever, was now completed by the accession of nausea, vomiting, and frequent discharge of dark-coloured fetid excrements. The abdominal tension and soreness were great; the pain so acute, that the weight of the bed-covering was uncomfortable, and the least motion induced sensations of the keenest distress.

The inflammatory symptoms were such as appeared to justify the employment of the lancet. I accordingly took eight ounces of blood from her arm. An emetic of ipecacuanha was next administered; and mild laxatives and enemas were employed occasionally during the whole course of the fever. Small doses of calomel and opium, and sometimes tartrate of antimony, or ipecacuanha conjoined, were my principal remedies during the first stage. Fomentations to the abdomen, and frictions with camphorated oil, and tincture of soap and opium, were ultimately applied. On the fourth and fifth days succeeding the attack, a remission of the fever occurred, and decoction of cinchona and tincture of opium were prescribed. Great distension, soreness, and pain about the abdomen, extending to the groin, with frequent

frequent liquid fetid stools, still continued, as also anasarcaous swellings of the lower extremities and deficiency of urine. On examination, an effusion of fluid in the cavity of the abdomen, or between the peritoneum and the abdominal muscles, was clearly ascertained. Having derived no advantage from diuretics, I resolved to try the effects of vesication, and, on the seventh and eighth days, applied two large blisters to her thighs: by her request, two others to her legs, and also one to each hypochondrium. The effects of these applications were truly remarkable: a copious discharge of limpid water issued from the vesicated parts, and a prodigious quantity of urine was evacuated, which, with the alvine discharges, continued to be involuntary for some time. The immediate consequences were, a subsidence of the anasarcaous swellings, and a great abatement of the tension and soreness of the abdominal muscles and integuments. A calm and refreshing sleep ensued, and the most distressing symptoms were in a considerable degree alleviated. Still, however, the extreme debility of the system, with a small and greatly accelerated pulse, and ghastly countenance, almost forbid the hope of a favourable issue. Digitalis, and other diuretics were duly exhibited, and by the use of pulv. ipecac. et opii, a free perspiration was preserved. On the tenth and eleventh days, a cessation of the involuntary evacuations took place; the abdomen is less swollen, and is free from pain or soreness. She complains of frequent faintness, pulse small and quick: an extreme irritability of the system; and strong aversion to medicine, is manifested. She, however, receives benefit from the use of tinctura cinchonæ comp. and decoction of cinchona is directed by way of injection. Another blister is applied over the umbilical region. Doctors Hitchcock and Hayward are consulted, and the result is a persistence in the means employed, though an unfavourable termination is apprehended. Twelfth and thirteenth days she complains of increased pain and swelling of the abdomen, with diarrhœa, and diminished secretion of urine; she has flushings, heat, and accelerated pulse. Digitalis, crem-tartar, &c. are again resorted to with some effect. Fourteenth to 16th, pulse continues frequent, urine scanty, stools thin and fetid, pain and swelling considerable. No return of lochia, nor secretion of milk, yet her appetite for food and her strength have increased, and appearances in general are more favourable.

Seventeenth to 20th.—My patient is now to be cruelly afflicted with a new and unexpected complaint, *Phlegmasia dolens*. She is seized with rigours, which are followed by a lymphatic swelling, extending from her hip to her foot on
one

one side, attended with much pain, soreness, and irritative fever. The morbid state of the intestinal discharges still continues, and also a deficiency of urine, in despite of the constant employment of diuretic medicines. Having formerly combated phlegmasia dolens successfully by a moderate mercurial course, I was induced to prescribe, in this instance, calomel and opium in small doses, and pulv. ipecacuanh et opii occasionally, accompanied with solutions of muriate of ammonia, acetis plumbi in vinegar, as local applications to the diseased limb. Although the most distressing symptoms were soon alleviated, many days elapsed before essential amendment was observable.

Having, for a length of time, directed my assiduous application to the tedious and difficult circumstances of Mrs. T., and exhausted every resource without the desired result, it occurred to me that the *Eau Medicinale d'Husson*, cautiously administered, might have the effect of relieving her agonizing pain, and diminishing the irritable state of her system. Accordingly, on the twenty-third day from her first attack, fifty drops of the preparation described in the American New Dispensatory, second edition, as directed by Dr. Jones, were given, which produced ease, but excited some nausea and a free perspiration. Before my next morning visit, the dose had been repeated; and in four hours after she was affected with severe vomiting, which lasted about two hours: considerable bile and mucus were thrown off, and she was much exhausted. In the afternoon, an unusual garrulity, and some confusion of intellect, were perceivable. She complained of a distressing sensation of heat, and burning in her throat, and extending to her stomach, with great thirst; her pulse about a hundred. These unpleasant appearances gradually increased, and in the evening she was much discomposed, and enjoyed no sleep. From these threatening circumstances, I was not surprised to find, on the 25th day, that my miserable patient was assaulted with genuine *gastritis*. She was now exercised with intense heat in her throat and region of her stomach, extreme restlessness, anxiety, and distressing thirst, with a quick and hard pulse. She manifests a strong aversion to her best friends, whom she had been in the habit of cherishing with the most endearing affection, and is averse to all kinds of food and drink. Although assafoetida and opium were administered by way of injection, no sleep was procured, and she continued through the night in a state of wild delirium, or morose sullenness.

Twenty-sixth. The climax of miseries is now completed
 no. 203. c by

by the appearance of *spontaneous hydrophobia*.* She labours under distressing thirst, calling most earnestly for water, and when presented, she rejects it with horror, and throws it from her with violence. A bowl of water being held near her, she paddled in it with her hands, and yet begged earnestly for water. She made every effort to avoid its approach to her mouth, and once, when her efforts were overcome, she spirted it over the bed, or in the face of her attendants, and crushed the bowl into pieces. During thirty-six hours she swallowed not a glass full of liquids; the juice which she drew from sliced oranges was her only sustenance. She became exhausted, her extremities were cold, and nature seemed to be sinking under a load of accumulated miseries. From the very irritable state of the system in general, and stomach in particular, little or no medicine could be administered, and my chief dependance was on appropriate injections; opiates thus introduced, sometimes produced a calm sleep, and afterwards some liquids were swallowed. A blister was applied to the region of her stomach, and another over her shaven head.

For a considerable time she exhibited a spectacle of horror and commiseration, by reason of a total alienation of her mental powers. Her aspect was sorrowful; now morose and sullen, and now she has a respite, and appears to suffer the keenest anguish by a consciousness of her deplorable condition. Again she relapses, and becomes outrageous, rending her clothes, and striking with her hands every object within her reach; no persuasion can sooth, no severity restrain the violence of her actions. At length, after the symptoms of hydrophobia had subsided, she was singularly affected with nervous agitation, tremor, and universal cramps and jaw-lock. She was deprived of the power of articulation; the muscles of her face, and her limbs, were contorted in a manner different from any thing of the kind which I had ever before witnessed; and these unpleasant circumstances continued with more or less severity for eight or ten days. In fact, a most distressing combination of symptoms and morbid affections continued to harass this unfortunate

* Spontaneous or symptomatic hydrophobia, in this instance, may be distinguished from rabid hydrophobia by these particulars. The patient did not manifest that remarkable degree of sensibility from the contact of external air, nor did the sight or touch of liquids excite convulsive agitations, spasms, or horror; nor was she troubled with that copious flow of viscid saliva and foaming at her mouth, which generally attend rabid hydrophobia. The leading features of both bear a striking affinity.

lady for about forty days from the period of parturition. At several stages of her successive attacks, it appeared as though life had been spun out to the last attenuated thread, or poised on a balance of the most delicate cast; but the restoring powers prevailed, and every morbid affection gradually yielded to the elastic efforts of the constitution, except that the natural periods of menstruation remain suspended.

In regard to the remedies employed, I have only to observe, that calomel and opium conjoined, proved most decidedly efficacious, by obviating the inflammatory tendency, arresting the progress of dropsical affection, correcting morbid diarrhoea, and, probably, by subduing phlegmasia dolens.

The blisters, so extensively applied, produced the most obvious and essential good effects, by abating local inflammation, relaxing spasm, and setting free an accumulated flood of water.—*New Eng. Journ.*

For the London Medical and Physical Journal.

Remarks on the Apothecaries' Act; by a SURGEON AND APOTHECARY.

PERHAPS some of your intelligent correspondents will favour your numerous readers with an explanation of that clause in the Apothecaries' Act which refers to druggists. The words are—"Provided always, and be it further enacted, that nothing in this Act contained shall extend, or be construed to extend, to prejudice, or in any way to affect the trade or business of a chemist and druggist, in the buying, preparing, compounding, dispensing, and vending drugs, medicines, and medicinal compounds, wholesale and retail; but all persons using or exercising the said trade or business, or who shall or may hereafter use or exercise the same, shall and may use, exercise, and carry on the same trade or business, in such manner, and as fully and amply to all intents and purposes, as the same trade or business was used, exercised, or carried on by chemists and druggists before the passing of this Act."

These gentlemen, under a supposition of being sheltered by the above clause, continue to exercise the various functions of the surgeon, the apothecary, and even the midwife. Patients are not only prescribed for at their shops, but regularly visited at their houses, by men who have never received any further education than that which has been obtained behind a druggist's counter, or extracted from such

valuable and instructive works as "Culpepper's Family Herbal," or Reeve's "Medical Guide."

Now, if the first clause in the Act, which I have transcribed below,* has any meaning, can you suppose that a man merely engaged in the trade or business of a chemist and druggist, that is, buying, preparing, compounding, dispensing, and vending drugs, &c. wholesale and retail, is protected by the clause alluded to, in thus trifling with the lives of his fellow creatures?

London; Nov. 10, 1815.

Our correspondent should remark, that the Act takes no notice of those now in practice. For the future, we conceive chemists and druggists will be prevented from visiting from home; but we must admit that the Act, in common with most others, is obscure in some parts.—EDIT.

COLLECTANEA MEDICA,

CONSISTING OF

ANECDOTES, FACTS, EXTRACTS, ILLUSTRATIONS,
QUERIES, SUGGESTIONS, &c.

RELATING TO THE

History or the Art of Medicine, and the Auxiliary Sciences.

Memoir on the State and Composition of the Atmosphere, considered as the Cause of the Hospital Gangrene, or Putrescence among the Wounded. By Professor S. J. BRUGMANS, of Leyden.

(Concluded from our last.)

CHAPTER IV.—*Of the Means capable of preventing that State of the Atmosphere which immediately gives rise to Hospital Gangrene; and of correcting it as speedily and as efficaciously as possible, if it is already developed.*

SECTION 56. This chapter naturally divides itself into two sections: the first on the prophylactic means; the second on those by which we may oppose contagion when it exists.

* "That from and after the first day of August, 1815, it shall not be lawful for any person or persons (except persons already in practice as such), to practise as an apothecary in any part of England or Wales, unless he or they shall have been examined by the Court of Examiners, or the major part of them, and have received a certificate of his or their being duly qualified to practise as such, from the said Court of Examiners, who are authorised and required to examine all person or persons applying to them, for the purpose of ascertaining the skill and abilities of such person or persons in the science and practice of medicine, and his or their fitness and qualification to practise as an apothecary."

Of

Of Prophylactic Means in general.—§ 57. After what has been said respecting the occasional causes which may prepare, favour, and produce, the development of the miasma, it will not be difficult to point out the most proper preservatives. I shall endeavour to detail them succinctly, and to show their value by actual observations.

The contagious matter is engendered in the air in which the patients exist, or, with greater certainty, is brought from without. See Chap. II.

Best Method of preventing the Development of the Miasma.—§ 58. The contagious matter proceeds from the exhalation of the human body, particularly when attacked with disease, and placed in an atmosphere not often renewed. The development is also favoured by the whole series of causes enumerated in § 28.

The methods by which we may prevent the removal of patients into hospitals from occasioning gangrene, or dissipate the causes of it when they have taken place, depend so much on the management of the hospital, and the mode of general treatment, that, precisely and completely to explain every thing to be done, in order to banish this dangerous disease, it would be necessary to enter upon an infinity of details; but we shall suppose that the proper management of hospitals is well known, and that it is only necessary here to dwell on the principal points. These are as follow :

§ 59. The hospital ought to be situated in a dry place, removed as far as possible from marshy ground, stagnant waters, and every collection of putrefactive matter, and, consequently, in a wholesome atmosphere.

If the wards are according to the dimensions already given, every patient will have, as he requires, at least 500 cubic feet of air. The renewal of this air is not less indispensable. Ventilators ought to be open as much as possible over the beds, and placed opposite to each other: the breadth of the whole taken together ought to be nearly equal to the half of the length of the ward. Besides these, it is absolutely necessary that on a level with the floor there should be air-holes, about a foot square, and which may be shut at pleasure by sliding doors. These air-holes ought to be at the distance of 10 or 14 feet from each other.

For wounded patients, rooms with a southern and eastern exposure are preferable.

Finally, the beds should be detached at intervals, as we have fixed in § 32; and the bottom of every bed should be elevated 14 or 16 inches above the floor.

§ 60. By attending to these particulars, and when the surgeons and assistants see that the air-holes and windows are open at the proper time, and not shut all at once on any account, even in winter nights, I dare venture to say that the air of the hospital will never be infected so as to occasion the slightest apprehension of this dreadful disease.

§ 61. The lighter strata of corrupted air will go off by the ventilators, and that which is heavier than pure atmospheric air, and is by far the most noxious, will go off by the air-holes. If a portion of this heavy air remains in the ward, it forms a stratum on the floor much below the patients' beds. In the case of hospital gangrene, this heavy air is infinitely prejudicial; thus, all things being equal, this disease is much oftener observed in low beds. It is never so frequent as when the patients are laid on mattresses or palliasses on the floor, which is too often the case in time of war.

§ 62. Two instances will here suffice to confirm the utility of this arrangement, considered as a preservative process.

1. When in wards of considerable size, the windows, air-holes, and beds were placed as described, and, finally, when the nurses did not neglect to renew the air, I have been uniformly convinced, by an infinity of experiments, that the air inspired by the patients was neither less fresh, nor of any other composition than the common air, whatever might be the season of the year, the hour of the day, or circumstances of the patients.

2. With such precautions, I have not witnessed, during the long space of eighteen years, during which I have been at the head of the army medical department, the appearance of the hospital gangrene.

Among a great number of facts which I might detail, the following will suffice.

In the year 1799, we received into the military hospital of Leyden 4000 wounded men. In this number there were many whose wounds secreted an enormous quantity of pus. We had, at the same time, thirty-four with fractures of the femur, complicated with gun-shot wounds, and all were placed in the same ward; besides which, there appeared several diseases of a bad character.

The situation of the hospital was far from good: we did not, however, perceive the slightest train of hospital gangrene. The renewal of the air was the chief cause of this success; and the indefatigable vigilance of a meritorious individual received the grandest recompense to a noble mind, that of having preserved the lives of hundreds.*

Military surgery requires no more energetic method of preserving the sick and wounded, than that of properly airing the wards. Every other disinfection or artificial amelioration of the air is superfluous, and even noxious.

§ 63. To the above grand preservative means of keeping the wards always filled with pure atmospheric air, we may add the following:

Remove every thing which tends to putrefaction and gives a bad

* Dr. Stark, then Surgeon-major in the Military Hospital of Leyden, and afterwards Member of the Dutch Army Medical Board.

smell; preserve, as much as possible, from all filth, the rooms, bedsteads, bedding, clothes of the patients, their bodies, &c.

A mattress which has been used for whole years without being cleansed, becomes like a sponge imbued with animal emanations, and it can scarcely be imagined to what a degree such a mattress will corrupt the air in a few hours.

§ 64. Let the food be sufficient to give strength, or at least to preserve it. Too great economy will soon kill a wounded patient.

Tonic drinks are of the first importance: the water ought to be always perfectly pure.

The surgical cases ought to be regularly dressed, that the pus may not remain too long on the ulcers, or putrefy in the bandages. In all cases we must remove from the rest of the patients those from whose wounds the pus is fetid, of a bad character, or too abundant. Neglect of this precaution has frequently spread hospital gangrene through a whole hospital.

§ 65. We may also reckon among the preservative remedies the continual vigilance of the surgeon to remove from the vicinity of the wounded all feverish patients, and particularly those who are seized with diseases which lessen the vital powers, such as malignant fevers, next, eruptive diseases, fluxes, &c. We ought also to separate from the rest of the wounded all those who are attacked with any gangrenous or malignant ulcers, of whatever description.

§ 66. Finally, among the causes which favour the hospital gangrene, I have still to include those passions of the mind which depress, and even destroy, the vital powers. If it is not in the power of the surgeon to dry up the source of these moral affections, he may always, by his humanity, mildness, and the interest which he takes in the fate of his patients, contribute greatly to the recovery of many who daily sink under wounds of little importance in themselves, solely on account of some galling mental affliction.

Means of opposing the Propagation of the Disease.—§ 67. We have seen that this disease is communicated through the medium of the atmosphere, and in a particular manner, by the application of infected pus to a healthy ulcer.

When a patient is attacked with an ulcer in which we discover the slightest symptom of hospital gangrene, or even any precursory sign of this disease, it is important above all things to remove him from the rest, to take care that the corrupted air may not penetrate into a healthy ward, that no patient from the clean wards shall visit those who are attacked with hospital gangrene, and that the nurses shall not heedlessly run out of one ward into another.

The lint which has been used for the dressings, and which is saturated with pus, ought to be buried under ground, or thrown into the fire. It is also to be wished that the linen of which a bandage consists, when it is stained with pus, should be destroyed, since the ordinary washing, and even long bleaching, are insufficient to completely remove the contagious matter.

It is of the last importance that the mattresses, bed-clothes, &c.

of

of a patient affected with hospital gangrene should not be given to another before undergoing a necessary purification.

Finally, the surgeons ought to take care never to put their fingers or instruments on a well-conditioned ulcer, if they have been touching a malignant ulcer, for, whatever M. Richerand may have seen in this respect, the importance of these precautions is clearly demonstrated by the experience of many other enlightened observers, by facts of which I have been many times an eye-witness, and even by the nature of the disease itself.

Methods of correcting or destroying the Miasma.—§ 68. After having treated hitherto of the means necessary for preventing the development and spreading of the miasma, we shall now suppose that the hospital gangrene exists, and that, consequently, the ulcers give out the miasma, which, as already observed, is communicated to the atmosphere. The question is confined to the inquiry, what are the physical and chemical methods which we may oppose to the disease? I, therefore, omit the medico-chirurgical treatment proper to be employed.

§ 69. The instant the malignant nature of the ulcers is perceived, we must examine attentively into the causes which may have occasioned it. In general, one or more of the above-mentioned causes will be discovered, and in this case they must be removed as speedily as possible. The origin of the contagion will rarely escape the detection of an experienced practitioner.

§ 70. The methods now to be resorted to are of two kinds. They tend to remove the infected atmosphere with all that is engendered in it, or rather to annihilate the miasma which already exists.

§ 71. In order to remove the miasma when once developed, it is not sufficient to open the doors, windows, &c. in order to admit fresh air: we must have an entirely new atmosphere. Trials frequently repeated, and always attended with the greatest success, leave me no doubts as to the efficacy of the following process.

We must begin by furnishing the patients with proper clothing, which must be changed from time to time; they are then to be laid on double palliasses, recently made, and not upon sacks filled with wool or hair; at the same time that they are covered with clean bed-clothes. Afterwards, if the season will admit, the beds are to be carried into the open air, and arranged, according to the direction of the wind and other circumstances, in the vicinity of a hedge, a wall, or any other inclosure. At the first view, many people will be afraid to place feeble patients thus in the open air; but let them be perfectly easy as to the event. What practitioner has not remarked the surprising efficacy of fresh air in the most virulent stage of small-pox, as well as in the most dreadful convulsions? The fresh air acts not less miraculously on patients attacked with hospital gangrene. If the rain or wind prevents entire exposure, tents ought to be erected, or an open gallery procured,

cured, in which to place the beds. Let not expences or difficulties deter us! What are expences and difficulties in comparison with a single human life? our business is the salvation of thousands.

Let the patients remain in the open air the whole day, until evening comes in: during this period the ward from which they came must be purified in the manner I am going to describe, or rather a ward not infected ought to be selected for lodging the patients during the night; next day they should be carried into the open air again.

§ 72. I have frequently derived the most inestimable benefits from this process. It will be sufficient to mention, that in the summer of 1807 the hospital gangrene broke out with all its fury at Leyden; and, in a single ward, upwards of sixty individuals were attacked with it at once. These patients underwent the above treatment, under the active vigilance of M. Luhrman, a most valuable and experienced practitioner at Leyden. The success exceeded our most sanguine hopes.

If the situation of the hospital, the season of the year, or other weighty considerations, absolutely forbid the patients being carried into the open air, the wards must then be changed. A second ward ought to be properly aired, for carrying the patients into it early in the morning; at the same time the first must be purified, as we are about to explain; next day the patients are to be placed in their former ward, and the new one is to be purified in its turn for their reception on the third day. In this manner the wards are to be changed, until not a vestige of contagion remains.

§ 73. The second process, which I have now to describe, has for its object the extinction of the miasmata.

Make a very large fire, scour the wards with a great quantity of water, whitewash the walls with lime, not to mention opening doors, windows, and air-holes; for all these methods, however justly relied on for purifying the air under any other circumstances, would not be sufficient to carry off, or rather to destroy, the contagious matter.

Guyton has particularly demonstrated that corrupted air cannot be corrected by fumigation of aromatic substances, such as oils, resins, fruits, or oleaginous seeds; nor by the detonation of gunpowder; nor by the evaporation of vinegar: it is, therefore, needless for me to recur to this topic.

§ 74. The only method of attaining the proposed object is, in the first place, the vapour of nitric acid, but, above all, that of the oxygenated muriatic acid gas. Guyton, in discovering the property of this last gas in destroying all kinds of noxious animal emanations, and, consequently, annihilating every contagious animal substance, has deserved well of mankind.

§ 75. It would be superfluous to treat here on the utility of these fumigations: they are known to the whole world by the writings of Guyton, Pinel, Smith, Odier, Rollo, Des Genettes, Paroletti, Cruikshanks, Poggi, &c.

Their united observations lead to the conclusion that these fumigations destroy, in a particular manner, the miasma of small-pox, of the venereal disease, protic diseases, the hydrophobia, yellow fever, and, according to the observations made by Fleury in the hospital of Cherbourg, they also destroy the miasma of hospital gangrene. (Ann. de Chimie, t. 46, p. 118.)

§ 76. In order to fulfil my promise, I shall confirm, by some experiments, the efficacy of the Guytonian fumigations in extinguishing the contagious matter of hospital gangrene; and I shall afterwards give the method which appeared to me the most convenient of applying this process to practice.

§ 77. I placed in the hydropneumatic apparatus a very large glass, filled with an air strongly impregnated with the emanations from a pus which was secreted from ulcers infected with hospital gangrene. A small number of the bubbles of Guytonian gas were sufficient to take all smell from the air, after being some hours in contact with the water.

I impregnated distilled water with exhalations from the above pus, according to § 39. By this process, the water acquired the peculiar smell which we have so often mentioned. As soon as I had mixed the above-mentioned gas with it, the water lost the smell of the pus, and, when kept for a long time, it did not go into putrefaction.

Although corrupted air may engender hospital gangrene, and although the latter greatly favours putrefaction, nevertheless the Guytonian fumigations deprive it totally of that tendency to putrefaction, as may be seen from the experiments mentioned in § 47.

I washed some lint, imbibed with pus, slightly in clean water: after having expressed the water as much as possible, I exposed it to the fumigation; afterwards I washed it, dried it, and aired it again, until not the slightest smell of muriatic acid gas remained. I used the lint on well-conditioned wounds without inducing hospital gangrene.

Finally, the power of this gas was still further demonstrated by the great use it was of to me in carrying off the above-mentioned miasma, as well as other contagious matters. I used it in the following manner:

§ 78. In order to disinfect clothes, coverlids, sheets, palliasses, mattresses of woollen or hair, the following apparatus is necessary.

Near every hospital let a small room be built, for instance, 10, 12, or 16 feet square, entirely devoted to fumigations, and for this purpose hermetically closed on all sides. Two or three feet from the floor, place a grating of thin wooden lathes, separated two inches from each other, and covering the whole surface of the room. At a height of four, five, or six feet above the grating, let ropes or stronger lathes be fixed, in order to fasten the heavier pieces of cloth which are to be purified. On the grating itself, wool, hair, and other objects of small size, are to be placed. In the

the lower part of the door, make a small aperture, 14 or 16 inches square, in order to introduce on a plank, into the middle of the room, the apparatus necessary for extricating the gas.

This apparatus consists of a chafing-dish or brasier, on which is placed turf, well lighted, and covered with ashes; over this place a glazed earthen pot, containing the above mixture of muriate of soda and oxide of manganese, dried, and afterwards diluted in a little water; then add the necessary quantity of sulphuric acid, and stir up the whole quickly. By means of the plank, the earthen pot is to be introduced under the grating, where it is to be left for two or three hours, taking care to close accurately the door and passage hole. The mixture may be withdrawn from time to time, and stirred, if the vapours are not very abundant; or more of the ingredients may be added; or the fire rendered more active, as the case requires. In this way the gas fills the whole chamber, and penetrates thoroughly every article which it contains. The whole may be kept shut up for twenty-four hours, afterwards giving free admission to the air. The fumigated subjects may be removed, which, after having been deprived of their pungent smell, by washing, or simple exposure to the air, may be regarded as free from all miasma:

With respect to the purifying of mattresses, they must be taken to pieces, and their contents exposed separately to fumigation.

§ 79. It now remains for me to show the method of disinfecting the wards themselves by this fumigation.

It is always best to remove the patients. When the walls are afterwards whitewashed, and the boards scoured with water in the usual manner, the fumigation may commence.

For this purpose, let the apartment be accurately closed, and in the centre, ten feet apart, let brasiers be placed, containing the fuming mixture already described. The whole ward will be instantly filled with vapours, resembling a thick fog. The whole may then be allowed to remain for twenty-four or forty-eight hours, after which the doors and windows are to be opened, the walls and glass windows well washed, and the flooring also; and for a few days free access must be given to the atmospheric air, when we may be completely satisfied that no more miasma exists in the ward.

§ 80. If it is impossible to empty the ward, a less perfect fumigation may be resorted to: place in glasses or small pots, capable of containing from eight to ten fluid ounces, a small quantity of the fumigating mixture, and heat it so slowly that a very slight vapour may be diffused through the ward. Continue thus to diffuse as much vapour as the patients can support without coughing too much; and, at the same time, give a free admission to the atmospheric air. In this way the Guytonian fumigations may be very salutary, particularly if other disinfecting processes be conjoined with them. This partial fumigation has frequently been of great service in preventing the miasma of a bad ulcer from being communicated to other individuals, through the medium of the

atmosphere. Nevertheless, if the contagion reigns throughout a whole ward or building, this slight and partial fumigation will not be sufficient, nor any thing less than the measures above mentioned.

§ 81. On a review of the whole, it will be seen that the success of every method suggested depends on the person who has the charge of the hospital. It is also evident that *a mere surgeon* is not the person required: it is necessary that he should attend to both physic and surgery, regarding them as two inseparable branches of the same science. The first period of the disease in question, and which it is so easy to stifle by the simplest efforts, will escape the observation of a person who has not a profound knowledge both of medicine and surgery. We may add, that even in the cure of the disease, internal remedies are frequently as efficacious as external applications.

The director of the hospital ought also to be well versed in physics and in chemistry; otherwise how can he know the connection of the phenomena which explain the state of the atmosphere, observe the characteristic signs of its purity or infection, and investigate the causes on just principles?

Finally, the practitioner in question ought to be endowed with a more than ordinary vigilance; his attention should embrace every thing connected with the hospital; let his indefatigable zeal never rest night and day, and, not content with performing well his own duties, let him also watch over his subalterns, and especially the nurses.

In the hands of such a man, I venture to believe that the methods prescribed will not only diminish the danger of hospital gangrene, but banish it altogether. Too often it must be regretted that the events of war do not permit. They are often such as are inconsistent with all the rules of art. But let us be silent. This is no part of our plan; and happy shall I feel if I have succeeded in throwing some light on the nature and causes of this formidable disease, and on the best means of removing it.

“Naturalem causam quærimus et assiduam non raram et fortuitam.”

THE Report of the Madhouses has, at length, been so hacknied, and with so little delicacy, that we shall rather select those passages which have not hitherto, as far as we know, been submitted to the public, than attempt to surprise our readers by disgusting histories of cruelty, inattention, and ignorance.

“Powers of Commissioners, &c.

Jovis, 11^o die Maii, 1815.

THE RIGHT HON. GEORGE ROSE *in the Chair,*

DR. RICHARD POWELL *called in, and examined.*

You are a Fellow of the College of Physicians?—I am.

And Secretary to the Commissioners appointed under the Act of the 14th of the King, for the regulation of Madhouses?—Yes; and have been so from September 1808.

Do

Do the College of Physicians annually elect five Fellows for visiting Madhouses within seven miles of the metropolis?—They do; according to the directions of the Act, and at their general meeting in September.

Do the Commissioners meet as prescribed under that Act, to grant licenses?—They do, according to the directions of that Act.

Do the Commissioners visit the houses once a year, and occasionally at other times?—They do; all houses once, and, where there appears a necessity, more than once.

Do they, on such visits, examine minutely into the state of the houses, and into the condition of all the apartments in them, and as to the care of the patients?—Yes.

Do they enquire into the medical treatment of the patients?—Not particularly.

Do they at all enquire into the medical treatment?—Into the medical attendance, certainly; that is to say, it is very frequently asked, Who attends this patient? but, into the propriety of the medicine administered, or into the medical treatment of the patient, they do not go; nor do they make this enquiry in every case.

Do they make minutes of their observations in those examinations?—They do; their present minute-book, which I have been ordered to bring with me, I beg leave to lay before the Committee.

[*Dr. Powell produced the same.*]

The Commissioners are sworn of course?—They are; every part of the Act, I believe, is fully complied with; it is the wish of the Commissioners that it should.

The minutes contain every particular which the Commissioners think deserve their notice, with their observations thereupon?—After the visitation, all the circumstances respecting every house visited on that day, are read over; and they determine upon the general minute that shall be entered upon the minute book, from the loose minutes taken at the time, and from their own recollection.

Have circumstances occurred tending to impeach the character of any of those houses, upon the visitations made?—Certainly. Every fault that is found, impeaches the character; and there are many noticed in that book.

If any discovery is made deserving censure or animadversion, is that stated in a paper, and hung up in the censor's room of the College?—Very seldom; because the method of publication by such mode of hanging up has been thought to be completely inefficient: It is thus hung up in a private room, into which few persons go; but, if any minute is made containing censure, or finding fault with particular conduct, the secretary is usually directed to write to the keeper, and to inform him of the circumstance: And if the house has been ill conducted, the Commissioners make a point of visiting again very speedily, in order to see whether the same objection still exists.

Have instances occurred of keepers refusing admittance to the visitors?

visitors?—No, I believe not; not within my knowledge, certainly.

Is an exact account kept of the whole of the proceedings of the Commissioners?—The minute they agree upon is entered; it is again read to them at their next meeting, and they sign it after consideration, as will appear from the book before the Committee; of course very many things occur during a visitation which are not mentioned in the minutes.

Have you reason to believe that regular accounts are transmitted of patients in the houses within seven miles of London, within three days after their admission?—There are instances to the contrary; but in general I believe they are very correctly returned.

When instances to the contrary have occurred, what has been done upon it?—If the omission appeared to have originated merely from error, the Commissioners have reprehended the keeper, and directed greater attention for the future; but in glaring instances they have ordered prosecutions.

In what instances can such omission have originated in error?—The confusion, for instance, between parish paupers and patients that are paid for, parish paupers not being returnable under the Act.

Have not the keepers of all those houses full information of the nature of their duty, which distinguishes between the parish paupers and the others?—I suppose they have, as far as the Act can give it.

Then how can it have arisen from error?—The Act is obscure: I can point out instances in the register where the return has been delayed to four or five days, instead of being made within three.

Do you mean to say those are the only cases where they have not complied with the Act?—Certainly not; there have been cases in which the Commissioners have even directed prosecutions.

Have the Commissioners directed prosecutions in all cases, except those of a trivial departure from the law?—No; this has depended upon their investigation of the facts, and I can probably answer the question better by a fact. A person was found confined in a house: one of the Commissioners had seen this person, who was admitted into this house without any certificate; the Commissioners visited, and found that he was so; he had been there but a little time, and his conversation then was exceedingly correct; they found that a statement had been made to the keeper, that the Commissioner had so seen him, and believed him to be insane; he took this report for a certificate, which it was not; but this was merely a mistake, without any intention of concealment, and so far excusable. This man, in consequence of the reprehension of the circumstance by the Commissioners, got at large, but he was insane, and very soon in confinement again; his was insanity of conduct, not of conversation.

Are you aware of lunatics being admitted without a certificate at all, in any case?—No, I am not: when I say that, I beg to state that I could refer to an instance where a lunatic has been received and confined without any certificate, or without any return,

turn, and the Commissioners have ordered a prosecution against the party; but, as a general conduct, certainly not.

As far as you are enabled to speak upon the subject, have those orders for admission been properly attested?—Yes, generally so, certainly; I would beg here to state to the Committee, that in consequence of the irregularity of such orders, the Commissioners directed papers to be printed and used, containing the medical certificate which ought to be required, and which they expected to find; and also blank returns of the circumstances required by the Act to be filled up by the keepers; and which are now mostly used, but not always, as they have no power to compel it.

[The Papers were delivered in, and read.]

‘ Medical Certificate.—For the reception of a patient into a licensed Lunatic house.

In consequence of sufficient personal examination of
I hereby certify to be of
insane mind, and I am of opinion that suitable confinement
of in a house licensed for the reception of
Lunatics, is necessary and proper.

Signed and sealed by

Dated this day of

To Mr.

N.B.—To be signed and sealed by some Physician, Surgeon, or Apothecary, and his residence and branch of the profession to be added.’

‘ Name of the person received

Date of admission into a Lunatic house

Name and residence of the friends or other persons by whose direction the lunatic is received

Name and residence of the physician, surgeon, or apothecary, by whose order, signed and sealed, such direction is given

Signed

To the Secretary for licensing houses for the reception of lunatics.

To be left with the Beadle of the College of Physicians, Warwick-lane, London.’

Do you always compare the number of persons in confinement in any given house, with the number of certificates?—No; it is impossible to do that.

Why is it impossible?—We have a file brought with the certificates jumbled together upon that file; patients have gone out of the house, and the certificates remain upon the file; in short, we only take some of these papers and collate them, and see that they accord with our registers and returns; we do not attempt to go through the whole, but take one indiscriminately, and see that that is correct, and from finding three or four so, we rather infer that the whole are so.

Do not you think the mode of entry might be so arranged and ticketed, on filing those certificates, that it might be easy to compare the certificates with the persons then under confinement?—Yes; but we have no power to direct it.

Of course, that would prevent altogether almost the possibility of a person being there, for whom there was not a proper certificate?—We are so far secure of the certificate, that the name of the medical person signing the certificate, as well as that of the friend of the patient, is entered in our book.

You are not sure that the man may be there?—No, the patient may be gone; we know nothing of him in the register beyond his admission; the Act provides for nothing more.

Recognizances are taken always before the licenses are granted?—They are in the Court of Chancery.

Have the Commissioners regular returns from the country, with respect to the number of houses, and the names of the patients confined in them?—They are imperfectly made in very many instances: many houses in the country do receive patients and never return them at all; we communicate this to the Clerk of the Peace, when we know it; he uses his judgment, and there the matter ends. The Commissioners receive no return of houses as they are licensed; the only knowledge they have of a house even being in existence in the country, is the receipt of a return, if made by the keeper, of the admission of a patient therein.

Have many returns been made to the Quarter Sessions, so far as you know, of minutes of the state of houses for the reception of Lunatics, at the visitation of licensed houses within the respective counties?—The Act directs that the visitors in counties *may*, if they think necessary, make minutes in writing. In case such minutes are made, then they are directed to return a copy of the minutes so made to the secretary; but they may visit without making any minutes at all. The copies of minutes which have been so returned, are certainly not from all those counties containing houses.

In the event of a license being withdrawn from a person keeping a house for the reception of insane persons, on account of gross misconduct, have the Commissioners power to refuse that man a new license, if he should apply for one the next day?—Certainly not, under the Act. I know no instance, however, of a license ever having been taken away.

In the various visitations the Commissioners have made, has no instance occurred, which, in the opinion of the Commissioners, would have justified the withdrawal of the license?—I cannot immediately lay my hand upon a minute of the sort; but I remember one, where the Commissioners would have thought it justifiable to have refused the license, if they had the power: they never have withdrawn it.

Has no instance occurred within your observation, of circumstances falling under the cognizance of the Commissioners, which would have justified their withdrawing the license?—Probably

many circumstances of ill conduct would have done that, and there have been abundant instances of such, but the Commissioners have never in fact withdrawn the license; how far they would have considered themselves justified in doing it, I cannot say.

Do you conceive that the provisions of the Act of the 14th of His present Majesty, are sufficient for carrying into effect the purposes intended by that Act?—I do not; the visitations have done an immensity of good; but the Commissioners have not sufficient powers.

State to the Committee the deficiencies, so far as they have fallen under your own observation?—May I be permitted rather to refer to the copy of a letter to a Peer, which will point out the chief deficiencies of the present law.

[*The Letter, together with one to the Chairman of this Committee, were read, as follow:*]

“ My Lord,

The Commissioners under the Act for regulating Madhouses in London, and within seven miles of the same, and within the county of Middlesex, beg leave to offer to your lordship their acknowledgments for the communication made to them through Dr. Pemberton, relative to the above Act. The suggestions and alterations proposed by your lordship, meet their entire concurrence; at the same time, as they relate only to local circumstances, and as the Commissioners are aware of many other defects, more immediately falling under their own cognizance, they have taken the liberty of suggesting them, in order that, when embodied with the alterations proposed by your lordship, a complete revision of the Act may take place.

The Commissioners beg to state, that the subject has heretofore, on various occasions, been taken into their most serious consideration; that the alterations they will have the honour of submitting, have been maturely weighed, and severally laid before counsel, for their opinion; that the whole have been digested into form; and of the opportunity now afforded by your lordship's offer, they feel it to be important to the interests of the public that they should hasten to avail themselves.

The Commissioners, therefore, propose to submit to your lordship, in the first instance, a very general view of the sufficiencies of the Act in its present form; of the modifications of which it is susceptible; and of the new matter which it may be thought proper to introduce therein. They deem it unnecessary to detain your lordship with a detail of inaccuracies of verbal expressions in the Act, although such are numerous, and productive of much inconvenience in the execution of it, because any such alterations can be better explained, and more easily made, if the subject shall hereafter receive minute consideration. For the same reason, the Commissioners will also omit some charges which refer to convenience alone, such as the manner in which the oaths are directed

to be administered (p. 1093) and the place of their meeting, which is limited to the Hall, or some other convenient place in the College of Physicians (p. 1094).

That various defects in the provisions of the Act generally do exist, appears from the Minutes of the Commissioners; the necessity for their frequent recourse to legal advice, and the publications of the proceedings of Courts of Law, and your lordship's recent information in the county of Wilts, is one proof among many that similar defects are felt in the more distant counties of England. That the verbal expression of those provisions is not in all instances clearly made, may be illustrated by an opinion of the late Lord Kenyon in 1782, which begins thus, 'I cannot give a receipt to provide for the inaccuracies of an ill-penned law.'

The first point to be considered in order, is the granting of licenses, which (page 1095) the Commissioners are required to grant to all persons who shall desire the same; and, by the opinion of counsel, they have been advised, that no impropriety of conduct, not even a previous conviction of offences under the Act, or the forfeiture of the license under one of its clauses, will, as the law at present stands, justify their refusals.

The Commissioners (p. 1095) are also restricted in granting licenses to one day in the year: it would be advisable that they should possess the power to grant them at any other time, provided that the licenses all terminated on the usual day of the year that the other licenses are granted for. It is to be observed, that the Magistrates of counties have the power of granting licenses at any General Quarter Sessions.

The sums to be paid by persons taking out licenses are now regulated by the number of houses, and by one single division only (as they may be *ten* in number, or *more than ten* (p. 1095) of the number of patients who shall be confined in each house. Under the present regulations, therefore, provided they be contained in one house, twelve patients or eighty patients require the same license.

The Commissioners imagine, that a scale may be formed according to the number of patients contained in one establishment, rather than the number of *houses* of which it may consist, which may not be more burthensome to the keepers in general, not much more productive to the fund from which the expenses of the commission are defrayed, and yet be more equal and just to all parties than the present arrangement. Such an adoption, too, will obviate some objections which occur in the execution of the Act, and do away the motives which exist to confine a great number of these unfortunate persons in a small space. Further, as it will hereafter be proposed that parish paupers shall not continue to be, as they are at present, deprived of any of the benefits of the Act; and as such lunatics are received at lower prices by the keepers, it might be proposed that houses licensed for their express reception, should pay for their licenses *only half the sum* determined upon for others.

As licenses are now granted (p. 1095), any person may require one; and it is true that he is rendered by his recognizance amenable for the conduct of the house; but such licensed person may not reside in the house; he may, if he pleases, entrust the charge thereof to a servant; and further, although one person only may take out the licence, it frequently happens that others also have a trading interest in the concern; it seems, therefore, proper and reasonable that these circumstances should be regulated, that all the parties interested should be answerable for the conduct of a Lunatic house, and join in the licence; and also that *one of the parties* to whom any house is so licensed, should reside upon the spot. Perhaps this provision might be enforced by a penalty attached to disobedience of it.

Again, the present Act allows the confinement of one Lunatic in a house without any license (p. 1092); and this provision looks very properly to the accidental occurrence of Insanity in private families, and to their security, under such afflicting circumstances, from vexation or interruption; but this privilege is construed to extend much further, for persons consider themselves to be justified by it in confining any number of patients in distinct houses, and even in contiguous ones.

The superintendance of the Commissioners is thus evaded, and they recommend that provisions be introduced into the Act, by which the practice may be prevented. As also the words of the Act at present stand (p. 1100), the penalty will be found to be incurred by those who shall 'admit, harbour, entertain, or confine, any (person as a) lunatic,' which circumstances of actual occurrence render it expedient to change into 'admit, harbour, entertain, or confine any lunatic,' omitting the words in a parenthesis.

The line of conduct to be observed by the keeper of the licensed house, should seem to follow next in order; and the directions of the Act, by which these are to be regulated (p. 1099), will require very material alterations.

Pauper Lunatics, sent by parish officers, are exempted from any returns on their admission into a Lunatic house, such as are required for other patients; and the Commissioners have found also, that, as the law at present is interpreted, no medical certificate is required to justify their confinement; this practice they have endeavoured, but not effectually, to do away; and the fiat of the parish officer alone is thus sufficient to consign a person to confinement.

The Commissioners conceive it will be thought right, upon every principle of humanity and justice, that all exemptions of this kind should be done away, and more particularly so, because it has been sometimes contended, that even private patients, if they be but admitted upon the same low terms as parish paupers, may be classed with them, and exempted from returns, and the other provisions of the Act.

A certificate of some physician, surgeon, or apothecary, as to
E 2 the

the insanity of the patient, is necessary (p. 1100) to justify the admission of such patient into a licensed house, to which description it ought, in the present state of the profession of medicine, to be added, some physician, surgeon, or apothecary, *legally qualified to practise as such*. The nature of the certificate should also be definitely expressed, and affirm, that the medical person who signs it has *actually visited* the patient. The London Commissioners have recommended the form which is attached to this Report, and on their visitations examine and compare the files of such certificates, and they would advise that a similar form should be added in an appendix to the Act.

The keeper is also bound (p. 1100) to return the name or names, and place or places of abode of the person or persons by whose direction the lunatic is admitted; and as the certificate of the medical person is directed to be signed and *sealed* by *him*, so ought also the direction of the friends of the patient, which is not at present required by the Act.

The returns to be made by the keeper to the secretary in London, on the admission of any lunatic, are, by the present Act, directed to comprise certain particulars, but these were found to be very defective, until the adoption of the form annexed to this Report; and there is still considerable difficulty in persuading the keepers of some houses in the country to employ it: It is recommended, that a similar form be adopted in the Appendix to the Act. As the return now stands, it will be seen that, besides the patient, there are three distinct parties concerned; i. e. the friend or friends who desire, the medical man who advises the admission of the patient, and the keeper or person to whom the house is licensed; and it is particularly advised that these three characters should be kept separate, and that a clause in the Act should prohibit every individual from signing the return in more than one capacity; and that no keeper or other person interested in a licensed house should sign a certificate for admission into it, in the character of a medical practitioner.

Further than this it seems necessary, that the observance of this most important point of medical certificates should be enforced by a penalty, which ought to be imposed upon the parties concerned, if any such medical certificate shall be proved to be improperly granted, and without personal examination of the patient: And here the Commissioners cannot but approve your lordship's suggestion, that a *plan* of the whole house to be licensed, and its respective rooms, should be delivered in at the time of first taking out a licence, and as often as any change shall take place, or the Commissioners require the same; it will afford the Commissioners an information which is important, and which they do not at present possess, further than by the knowledge they acquire by repeated visitations; perhaps the accuracy of such plan will be better enforced by a penalty for every false return, than by an oath on the part of the keeper.

It will also be proper to direct the keeper to make still further returns of the state of their houses, besides the returns, within a certain number of days, of patients received therein; *and also at the time of taking out the annual licence, that the keeper should deliver to the secretary an account of all the patients then entertained under his care*, and that he should make a return to the secretary, within the same number of days, *of discharges, or deaths, or other changes*, which may occur therein; and these circumstances, with their several dates, ought to be added, in separate columns, to the corresponding names in the register, which at present can only account for the admission of patients, and affords no means of obtaining that further information, which is so often sought for as important.

The visitations to be made by the Commissioners, and their several duties and mode of election, come next (p. 1099), and will probably require no alteration; but it is suggested, that, if the mode of paying for licences according to the number of patients, as before stated, be adopted, it will also be proper that the remuneration to the Commissioners should follow the same rule, rather than, as at present, one guinea should be paid to each for every house visited; there should also be a clause to empower them in their visitations to liberate from confinement any person whom they shall have sufficient reason to consider as of sane mind, or improperly confined, which at present they do not possess, as under many cases of such occurrence, the slower though regular process of the law must, from the time it requires, be a source of infinite distress to individuals in such a situation.

The Commissioners in London are by the Act (p. 1092) elected annually on the last day of September, the former Commissioners then quit their office; the new Commissioners meet for the purpose of granting licences on or within ten days of the third Wednesday in October, which licences are to commence on the 20th of November following. Now either the licences should commence on the day upon which they are granted, *or the new Commissioners should be specially empowered, if they please, to visit during the remaining term of the licences granted by their predecessors*, and not to leave, as seems at present to be the case, seven weeks, i. e. from September 30th to November 20th, without any regular superintending power.

It is enacted (p. 1097) that any part of the Report of the Commissioners which conveys censure or animadversion upon any house, shall be *hung up in the Censor's room of the College*, to be perused and inspected by any person who shall apply for that purpose; and the insufficiency of this provision to any good purpose must be manifest. It is therefore proposed to alter it, and to direct that a copy of such part of the Report as conveys censure *shall be communicated to the keeper of the house, and also entered in a separate register, to be kept in a convenient place at the College, for public inspection.*

The Commissioners ought also to have a power vested in them by the Act, of taking recognizances at the time of granting licences; and the clause giving them this power should also require, that they be returned to the Quarter Sessions for the county, a power which the Commissioners for other counties at present possess.

The application of the Act to the counties of England and Wales generally, might demand various considerations according to local circumstances; but it is supposed that any such will not require much deviation from those which the London Commissioners recommend, founded upon ample experience.

In relation, however, to the houses in counties, it may be observed, that (p. 1102) the keepers are directed to make a return of the lunatics they admit, to the secretary to the London Commissioners, within fourteen days from such admission, which names, &c. are to be entered in a separate register. Now, as the Act stands, such entries must be imperfect and insufficient; these returns from the keepers are the only intimations of the existence of such houses which the secretary receives, and even these are, in some instances, wholly omitted, and houses exist, and no returns are ever received from them. It would therefore supply a material check upon such irregularities, if the *Clerk of the Peace* for the county or place where such houses are licensed, shall be obliged, under a penalty, to *return a list to the secretary in London, of such licenses, within a given time after they are granted.* And it is further presumed, that the purposes of the Act would more effectually be promoted, if the Commissioners for counties were directed to make *regular minutes of the state and condition of houses, and of the number of patients confined therein, and to transmit copies thereof to the secretary in London,* under certain penalties, rather than that such minutes and transmissions should be left so much at large, as is done by the terms of the present Act.

There is furthermore another general provision of the present Act (p. 1104), which seems to require some modification. It is there provided, that the Act shall not extend to any of the *public hospitals* within this kingdom. And the Commissioners suggest, that this should be confined to *pauper* lunatics admitted into such institutions as objects of charity, and not extended to those who pay, and sometimes largely, for their accommodation and treatment, as is at present the case in a variety of places, which shelter themselves under this designation, and receive patients of all descriptions who may offer.

The Commissioners beg leave finally to observe to your Lordship, that any illustration, by cases of actual occurrence, of the opinions contained in this general statement, is, for obvious reasons, passed over; but, if it should be deemed necessary, there is no point here mentioned which may not be supported by evidence, as recorded in their minutes and register; and that it will be their especial duty to assist in rendering this important Act more practically

tionally applicable to circumstances in its execution, and still more conducive than it is at present to the public good.

I have the honour to be, my Lord,

Your Lordship's obedient Servant,

R. POWELL, M.D. Sec.^o

To the Right Hon. the Earl of Radnor,

&c. &c. &c."

" To the Right Honourable GEORGE ROSE.

Sir,

April 22, 1813.

I have the honour of communicating to you the papers to which I referred, respecting the Madhouse Act, and the following short account of the proceedings of the Commissioners upon that subject, with which it seemed proper that you should be acquainted. In the spring of the year 1811, Mr. William Wynne's bill for regulating Pauper and Criminal Lunatics, was brought before Parliament, for the purpose of introducing some amendments therein; and on that occasion Sir Lucas Pepys and I had some conversation with him upon the subject of the Act for regulating Madhouses; in consequence of which the Commissioners entered into a full consideration of the provisions of the Act, and made therein such alterations as they conceived likely to be practically beneficial: these were submitted to the opinion of Mr. Warren, the College counsel, and Lord Radnor has the only copy of his reply to the more general suggestions which were contained in the amended Act. The Act, as at that time altered, forms the chief part of the copy which Lord Radnor has now laid before you. The Commissioners then thought it to be their duty to call the attention of the College to the subject, and to require their determination upon the propriety of making an application to the legislature for the amendment of the Act; but, after the annual change of the College officers and Commissioners, the consideration passed by at the time; and it has now been renewed in consequence of certain circumstances which have occurred in Wiltshire, under the immediate notice of the Earl of Radnor, and have induced him to interest himself in the endeavour to prevent a repetition of them. Reports from the visitors in counties are very irregularly made; and one dated November 23, 1812, which refers to the subject before us, is the first which for many years back has been received from the county of Wilts. This Report states, that 23 persons were confined in a licensed house then visited, eight of whom were paupers sent by parish officers, and details many circumstances in its management, which deserved severe censure. On examining the register of lunatics admitted into such houses, it appeared that not one of the 15 patients who were not paupers had been returned to the secretary in London, for the insertion of the name therein, according to the directions of the Act; and this information was immediately stated officially from the Commissioners to the Clerk of the Peace for the county, but he has not noticed to them

them the receipt of such communication. On March 13th last, Sir Francis Milman laid before the Commissioners a letter from Lord Radnor to Doctor Pemberton, enclosing a plan intended to obviate, in future, the evil which had been recently found to exist in Wiltshire; and at the same time requesting to know if the Commissioners had any suggestions to offer upon the same subject. The Commissioners thus applied to referred to the paper which had been drawn up in 1811, and made some additions thereto, in consequence of some circumstances of still later occurrence; but they judged, that, in answering Lord Radnor's letter, it would be desirable, in the first instance, to address a more general report to his Lordship, and to lay before him a view of the practical objections to the existing Act, and of those alterations which appeared to them to be necessary. A copy of this letter I have now the honour to transmit to you. Lord Radnor took the trouble to digest these suggestions into the form of the clauses of an Act of Parliament, which he returned for the consideration of the Commissioners, who, in order that their bearings and relations to the present Act might be more clearly seen, directed that such of them as had not been noticed on the former occasion, should be added thereto, and the whole entered in their proper places in an interleaved copy of the present Act. This copy was then sent to Lord Radnor, for his opinion and observations, and has been communicated by him to you. The Commissioners, however, are aware, from experience, that much more caution and attention will be necessary in wording the Act, so as to make it clear and definite in its practical application; and believe, that it would be better to form a new Act altogether, than to attempt to amend the old one; and they purposed, in the next place, to apply for the direction therein of some person especially conversant in the form and language of Acts of Parliament, and they submit it to you, that some such step will still be proper, before any application be made to the legislature.

I have the honour to be, Sir,
 Your most obedient humble Servant,
 R. POWELL, M.D. Sec."

The importance of the above document cannot be questioned, nor is it for us to enquire into the powers given to the Commissioners; yet, under the most imperfect information, we cannot help expressing some surprise that so powerful a body as the London College should not refuse, *suo periculo*, licenses whenever they thought proper, and trust to the issue of any action from the parties who might think themselves aggrieved.

CRITICAL ANALYSIS

OF RECENT PUBLICATIONS

IN THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND
MEDICAL PHILOSOPHY.

Physiological Researches on Life and Death; by XAVIER BICHAT. Translated from the French, by F. GOLD, Member of the Royal College of Surgeons, London. 8vo. pp. 283. Bristol; printed for Longman and Co. London.

A LIFE of Bichat is prefixed to this work, the more interesting particulars of which are already before our readers. Researches on life and death can scarcely be productive of any practical advantages excepting in one important inquiry, namely, the signs of death, and the best means of resuscitation after an apparent suspension of the actions of life. Whatever is said must lead to such inquiries, and indeed the phenomena of both are intimately intermixed. We should therefore have been better pleased had the title contained a reference to that part of medicine, as it would have been the means of leading to some object, through a series of experiments, most of which have been anticipated by Mr. Hunter with much more satisfactory inferences. We shall, however, pursue our analytic process, as the only impartial mode of treating an author.

First, then, for the definition of life. "Life, it is said, consists in the sum of the functions, by which death is resisted." This is not expressed so well as by our English physiologist, who calls life the power of self-preservation from the changes which take place in dead animal matter. In the next position both agree. "The principle of life is unknown in its nature, and can only be appreciated by its phenomena." To what purpose then are researches after what can never be discovered, and why is not the title of the work *An Inquiry into the Phenomena which distinguish living from dead Animal Matter, and into the Means by which Life is preserved or destroyed in the various parts or in the whole of an Animal*. Such a title would have kept our minds awake to some practical object, to the avoiding of every means of destruction, or the providing as much as possible against their effects. A remark follows that there is a superabundance of life in the child; that is, that, besides the usual powers of support, there are powers of increase, and that the powers of restoration are greater.

After these preliminaries, the subject opens with "the division of life into animal and organic life." This comprehends a distinction of those actions by which life is supported, which vegetables possess as well as animals, and those properties which are peculiar to animals, by which they are connected with external objects, by which they feel, reflect, and move, according to the influence of certain impressions, and are able to communicate, in some cases, by their voice, their desires, fears, pleasures, and pains.

The aggregate of the functions of the first order, M. Bichat names *organic* life, because all organised beings, whether animal or vegetable, enjoy it more or less, because *organic texture is the sole condition necessary to its existence.* The sum of the condition of the second class, because it is exclusively the property of the animal, he names animal life.

We cannot help arresting the attention of our readers for a moment, to show the superior accuracy of our English physiologist. If life, said he, depends entirely on the construction of certain parts (or texture, as M. Bichat calls it), we should find those parts different in the living and dead subject; but this is not the case. "Life, therefore, is a something superadded, the nature of which we neither do nor can ever comprehend." It must be admitted that M. Bichat admits our incapacity to comprehend the nature of life. Why then, we would ask, does he so far forget himself as to say that "*organic texture is the only condition necessary to its existence.*" If by this he would have us understand that this organic texture is all we can discover in organic life, we might ask, what more can he discover in animal life? We see certain organs, by which we perceive that animals live, and are supported. We see the same organs when the actions of life are interrupted. In animals we see organs for similar purposes, and others by which the animal is enabled to perceive external objects, and communicate those sensations which such objects excite. These organs we can not only discover, but even imitate their structure; but we can never discover that power by which impressions are received or communicated. Life, therefore, (we repeat it in the words of our countryman) is a property we do not understand, and of which we can only trace the phenomena by which it is distinguished.

We transcribe the following section as a specimen of the near approach to metaphysics which every author must make when he attempts to state analytically the various properties of living bodies.

"§ II. *Subdivision of each of the two lives into two orders of functions.*—The animal and the organic life are each of them composed

posed of two orders of functions, which succeed each other, and are concatenated in an inverse direction.

“ In the animal life, the first order is established from the exterior of the body, towards the brain; the second from the brain towards the organs of locomotion and the voice. The impression of objects successively affects the senses, the nerves, and the brain. The first receive, the second transmit, the third perceives the impression. The impression in such way received, transmitted, and perceived, constitutes sensation.

“ The animal, in the first order of these functions, is almost passive; in the second, he becomes active. This second order is the result of the successive actions of the brain (where volition has been produced in consequence of the previous sensation); of the nerves, which transmit such volition; and of the locomotive organs and voice, which are the agents of volition. External bodies act upon the animal by means of the first order of these functions; the animal re-acts upon them by means of the second.

“ In general there exists between the two orders a rigorous proportion: where the one is very marked, the other is put forth with energy. In the series of living beings, the animal which feels the most moves also the most. The age of lively perception is that also of vivacity of motion; in sleep, where the first order is suspended, the second ceases, or is exercised only with irregularity. The blind man, who is but half alive to what surrounds him, moves also with a tardiness which would very soon be lost, were his exterior communications to be enlarged.

“ A double movement is also exercised in the organic life; the one composes, the other decomposes, the animal. Such is the mode of existence in the living body, that what it was at one time it ceases to be another. Its organization remains unaltered, but its elements vary every moment. The molecules of its nutrition, by turns absorbed and rejected, from the animal pass to the plant, from the plant to inorganic matter, return to the animal, and so proceed in an endless revolution.

“ To such revolution the organic life is well adapted. One order of its functions assimilates to the animal the substances which are destined to nourish him, another deprives him of these substances, when, after having for some time made a part of it, they are become heterogeneous to his organization.

“ The first, which is that of assimilation, results from the functions of digestion, circulation, respiration, and nutrition. Every particle which is foreign to the body before it becomes an element of it, is subject to the influence of these four functions.

“ When it has afterwards concurred for some time to the formation of the organs, the absorbents seize on it, and throw it out into the circulatory torrent, where it is carried on anew, and from whence it issues by the pulmonary or cutaneous exhalations, or by the different secretions by which the fluids are ejected from the body.

“The second order, then, of the functions of the organic life, or that of decomposition, is formed of those of absorption, circulation, exhalation, and secretion.

“The sanguiferous system, in consequence, is a middle system, the center of the organic life, as the brain is the center of the animal life. In this system, the particles which are about to be assimilated are circulated and intermixed with those which, having been already assimilated, are destined to be rejected; so that the blood itself is a fluid composed of two parts; the one, the pabulum of all the parts of the body, and derived from the aliment; the other, excrementitious, composed of the wrecks and residue of the organs, and the source of the exterior secretions and exhalations. Nevertheless these latter functions serve also, at times, the purpose of transmitting without the body the products of digestion, although such products may not have concurred to the nourishment of the parts. This circumstance may be observed when urine and sweat are secreted after copious drinking, the skin and the kidneys being at such times the excreting organs, not of the matter of the nutritive, but of that of the digestive process; the same also may be said of the milk of animals, for this is a fluid which certainly has never been assimilated.

“There does not exist between the two orders of the functions of the organic life the same relation which takes place between those of the animal life. The weakness of the first by no means renders absolutely necessary a decrease of action in the second. Hence proceed marasmus and leanness, states in which the assimilating process ceases in part, the process of excretion remaining unaltered.

“Let us leave, then, to other sciences, all artificial method, but follow the concatenation of the phenomena of life, for connecting the ideas which we form of them; and we shall perceive, that the greater part of the present physiological divisions afford us but uncertain bases for the support of any thing like a solid edifice of science.

“These divisions I shall not recapitulate; the best method of demonstrating their inutility will be, if I mistake not, to prove the solidity of the division which I have adopted. We shall now examine the great differences which separate the animal existing without from the animal existing within, and wearing itself away in a continual vicissitude of assimilation and excretion.”

Those who are fond of pompous nothings, or, as is said of some gothic buildings, “passages which lead to nothing, and windows which exclude the light,” may study the above passage, and, when they have made themselves masters of it, will find themselves exactly where they were before. Such reasoning as this is too plain to require more than to remind us of it; and, unless we get it by heart, we shall find it necessary to recapitulate as much as we have occasion for, whenever any inference is to be drawn from it. It therefore tends

only

only to disgust the modest inquirer, who can hardly believe he has been studying what is already familiar to him, or it elevates the already-confident too much in his own opinion, when he conceives that he has been studying a profound proposition, of which he has made himself master with so much facility.

The second chapter is on the general difference of the two lives, with regard to the outward form of their respective organs. There is much ingenuity and interest in these sections. The symmetry of the parts connected with animal life is shown, not only in most of the organs of sense being double, and exactly corresponding with each other, but also in the regularity of their conformation in most subjects, and the inconvenience which arise from any deficiency, either in symmetry or uniformity. On the contrary, it is very justly remarked, that in the organic life all the parts subservient to those purposes are irregularly disposed; that there is nothing to correspond in figure with the heart, the liver, or spleen; that, though there are two kidneys, they are rarely exactly similar, and the lobes of the lungs always different; that not only does this want of symmetry prevail, but also a want of uniformity in different subjects; that the heart itself varies in size, and the disposition of the intestines also; that the livers of different subjects are seldom exactly alike, and the uncertain size of the uterus is universally known and remarked. The blood-vessels vary considerably, and the glandular system still more.

The third chapter begins with showing the general difference of the two lives, with regard to the mode of action of their respective organs. In the first or animal life, it is not difficult to prove that any irregularity in the configuration of the organs of sense must produce a want of harmony in their effects on the sensorium. If the eyes are different in figure, the axis of vision is different, and, in order to view an object distinctly, one of them must be shut. If artificial assistance is used for one, the other is usually shut. The ears, we are told, must hear alike, or the consequence will be a confused sense of hearing, inconsistent with the power of discriminating harmony from discord. This is a question we leave to be decided by musicians. The subject is considered as relating to the other senses, in which it is shown, that to produce a complete harmony in their whole effect, there must be a complete correspondence between the organ and the sensorium, and even the various sympathies connected with them. We extract the following passage to show that in some of his opinions Spurzheim is supported by this very popular writer.

“The

“The external senses are the natural excitants of the brain. The functions of the brain succeed to theirs; and this organ would but languish, were it not to find in them the principle of its activity. From sensation follow perception, memory, and imagination; from these the judgment. Now it is easy to prove, that these different functions, commonly known by the name of the internal senses, are governed in their actions by the same laws which influence the external senses; and that, like them, they approach the nearer to perfection in proportion to the degree of harmony existing in the symmetrical parts in which they have their seat.

“Let us suppose, for instance, one hemisphere of the brain to be better organised, and therefore susceptible of livelier affections, than its fellow: in such case, the perception of the individual would be confused, for the brain is to the soul what the senses are to the brain; it transmits to the soul the impressions conveyed to it by the senses, as the senses convey to the brain the impressions made upon them by external objects. But, if the defect of harmony in the external senses confuse the perception of the brain, why may not the soul perceive but confusedly, when the two hemispheres of the brain are unequal in power, and incapable of blending into one the double impression which is made upon them?

“The memory is the faculty of re-producing former sensations; the imagination that of creating new ones: now, in the act of remembering or imagining, each hemisphere of the brain appears to re-produce, or to create a sensation of its own. If both do not act alike, the perception of the mind, which ought to be the result of the two sensations united, will be inexact and irregular. But it is evident that there will be a disparity in the two sensations, if there be a disparity in the two halves of the brain in which they have arisen, and since the general foundations of the judgment are made up of the faculties of perception, memory, and imagination, if these be confused, the judgment itself must be confused also.

“We have now supposed an inequality of action in the hemispheres of the brain, and inferred, that the functions would in this supposition be imperfect; but what as yet is only supposition, in a variety of instances can be proved to be a fact; for nothing is more common than to find, in consequence of compression on either hemisphere by blood, pus, or exostosis, a variety of alterations in the intellectual functions.

“Even when all appearances of actual compression have vanished, if in consequence of that which has been experienced, a part of the brain remain enfeebled, the same alterations of mental power will be found to be prolonged. If both hemispheres of the brain, however, be affected equally, the judgment, though weaker, will be more exact. Perhaps it is thus that we should explain those observations so frequently repeated, of an accidental stroke upon one side of the head having restored the intellectual functions, which had long remained dormant in consequence of a blow received upon the other side.

“I now

“I now conceive myself to have proved, that with inequality of action in the hemispheres, there must be confusion of intellect. I have also pointed out some states of disease, in which such confusion is evidently the effect of inequality of action so occasioned: here we see the effect and its cause; but may we not, from analogy, infer a similar cause where we see a like effect? when the judgment is habitually incorrect, and all the ideas wanting in precision, may we not be induced to believe, that there does exist a defect of harmony in the action of the two hemispheres of the brain? We see inaccurately if nature have not given to both eyes an equal power; we perceive and judge inaccurately, in like manner, if the two sides of the brain are naturally dissimilar. The most correct mind, and the soundest judgment, pre-suppose in the hemispheres a perfect harmony of action; and what a multiplicity of shades do we not behold in the operations of the understanding? It is probable that they all of them correspond to so many varieties in the proportions of power in the hemispheres. Could we squint with the brain as we do with the eyes—that is to say, could we receive impressions on one hemisphere only, and form from thence our determinations, we might then command at will a precision in our intellectual operations; but such a power does not exist.”

“I wish to observe (concludes our author) in finishing this section, that in pointing out the different derangements which take place in the animal life, from the want of harmony in the organs, I have only pretended to assign a single isolated cause of such derangements; I am well aware that a thousand other causes besides dissimilarity in the hemispheres of the brain may affect the operations of the mind.”

The opinion of a discordance of action arising from any difference in the organs is carried even to locomotion. Bichat does not consider, like Spurzheim, that the right side is originally stronger than the left, but that the difference arises from habit and education; and that for want of similar powers in both hands and both sides of the body, there is a deficiency in the harmony of action of the whole, which can only be remedied by giving less power to the right and more to the left, so as to reduce both to a level. This he conceives absolutely necessary to graceful dancing, and other feats of agility. Necessary as he conceives harmony to all the organs of animal life, M. Bichat proceeds to show that in organic life it is of no consequence.

“What detriment (he asks) would it be to the general health of the individual, should one of his kidneys be stronger than the other, and secrete more urine; should one of his lungs be better unfolded than the other, admit more venous, and send out more arterial, blood; should a less organic force be the lot of the salivary glands on one side than on the other side of his body? The simple function, to which both organs concur, would not be performed

formed less perfectly. Whenever but a slight fulness supervenes on one side of the liver, spleen, or pancreas, the sound part makes up for the defect, and the function is little disturbed. The circulation also remains unaltered among the frequent variations in the vascular system on each side of the body, whether such variations exist naturally, or whether they arise from some artificial obliteration of the larger vessels, as in aneurism."

Hence he remarks, with much judgment, that the little varieties in the formation, and even the actions, by which mere organic life is supported, viz. a quicker or slower circulation, a greater or less quantity of bile, or urine, or fæces, are of only temporary existence, and altogether unimportant to the general economy.

The fourth chapter is on the difference of the two lives with respect to duration [continuance] of action. Respecting organic life, it is shown that the shortest suspension endangers, and that continuance of such suspension extinguishes, life. All the secretions, it is remarked, are continually going on, though in various degrees, and with a mutual dependance on each other, as the circulation, respiration, &c. On the contrary, in the *animal life intermissions are absolutely necessary, not merely remissions. All the senses are fatigued by long exertion, and lose their sensibility, till they are relieved by rest. The brain must, after intense action, have rest; the muscles also. Mr. Hunter, with his usual accuracy, remarked, that even the muscles of involuntary motion, as the heart, which Bichat considers as forming a part of organic life, require rest. The action of the heart, he remarked, was alternated with rest in every systole and diastole.

A section follows on sleep, as an illustration, according to its degree, of the remission or intermission of animal life.

Another distinction in the character of the two lives consists in the independance of one, and dependance of the other, on habit. Animal life, it is shown, is almost governed by habit, as we say, commonly, that habit is second nature. The effect, however, of habit is shown to blunt sentiment or feeling, but at the same time to improve judgment. The latter position is unquestionable. The former is liable to many exceptions. A fine country is said to please at first sight, but to satiate by constant view. This often depends on other associations. The taste, so far from being blunted, is often more alive to particular impressions from certain

* Among the innumerable errors of the press, this is not the least: instead of contrasting the two lives, the translator has termed them both organic. See Translation, p. 48.

food or liquors, in proportion as it is more accustomed to them. This M. Bichat would call judgment; but, if the impression is lively, it cannot be said to be blunted. In many instances the aphorism is very just. We may be reconciled to many things besides the introduction of a bougie, by frequent habit. If, by this remark, the author only refers to the necessity of some intermission in the exercise of the organs, he means no more than was contained in his former chapter. That habit improves judgment, cannot be questioned.

In the organic life, on the contrary, it is shown that habit has no influence, unless we refer to some actions which are partly voluntary, such as the evacuation of excrement, the habit of the stomach for certain kinds of food and at certain periods. These, therefore, are considered as holding a middle place between the two lives, or as partaking of both.

The sixth chapter is on the difference of the two lives with respect to mental affections. The introduction is so well expressed that we shall transcribe it at length.

“It is necessary to consider, under two relations, those acts which, little connected with the material organization of animals, are derived from this principle, so little known in its nature, but so remarkable as to its effects, the center of all their voluntary motions; and on the subject of which there would have been less dispute, if philosophers, instead of attempting to reach its essence, had been contented with analyzing its operations. These actions, which we shall consider more especially in man, with whom they are the most perfect, are either purely intellectual, and relative to the understanding only, or they are the immediate product of the passions. Examined under the first point of view, they are the exclusive attribute of the animal; under the second, of the organic life.”

The first section, that “whatever relates to the understanding belongs to animal life,” contains nothing which can admit of a question. The second, that “whatever relates to the passions belongs to organic life,” requires some illustration. It is a very important passage, containing many very valuable and ingenious remarks. To enter fully into it, the passage must be carefully perused: we shall only offer the outlines.

That the passions depend on organic life, the author endeavours to prove by showing that the organs will excite all the passions, and that all the organs will be affected each by its appropriate passion. Anger affects the heart, and the whole circulating system. Terror affects the same parts, but in a different ratio. Sadness and sorrow are nearly analogous, and only less in degree. Respiration, digestion, and

many of the secretions, are influenced by the passions; and these secretions influence the passions. The very language of the vulgar, observes our author, would direct us right in these respects, notwithstanding the influence of philosophy. Our common expressions, *une tête forte, bien organisée*, a strong or well organized head,* in speaking of a sound understanding; *un bon cœur*, a heart, sensible to indicate feelings, or the prevalence of amiable passions. The very expressions of fury thrilling through the veins, and rousing the gall; of joy making the heart leap; of jealousy distilling poison into the heart; are, we are assured, by no means poetical expressions, but real descriptions of nature. At length the author goes a step further; and, if we are not ready to follow him throughout, we are ready to admit that we are still less disposed to contradict him. He ventures to assert that anger and love inoculate, if we may so express it, into the humours, particularly the saliva, a radical vice, to which he imputes the danger of the bite of animals agitated by such passions. The passions of the nurse, he conceives, impress on the milk an injurious taint, from whence various diseases affect the infant. This is tender ground to tread upon. We shall therefore only refer our readers to the remarks we ventured on Mr. Parkinson's case, in our review of Dr. Parry's opinions concerning Hydrophobia. The effect on infants is well known; but may be readily accounted for by the want of health in a nurse under the prevalence of any unfavourable passion, as it is not pretended that the child's temper becomes similar to the nurse's.

“The ancients (concludes our author) were better acquainted with the laws of the economy than our modern mechanics, in supposing that our bad affections were evacuated by purgatives, together with the noxious humours of the body. By disembarassing the primæ viæ, they got rid of these affections. In fact, how dark a tint does the fulness of the gastric viscera cast upon the countenance! the errors of the first physicians on the subject of the atrabilis, were a proof of the precision of their observations on the connexion of these organs with the state of the mind.

“In this way every thing tends to prove, that the organic life is the term in which the passions end, and the centre from whence they originate. But we shall be asked, perhaps, why vegetables, which live organically, do not offer any vestige of them? The reason seems to be, that besides their want of the natural excitants

* Our English expression is a *cool head*, with which Voltaire was so much pleased, that he adopted and translated it *une tête froide*, in describing the character of Marlborough. See Mem. of Louis XIV.—EDIT.

of the passions, namely, the external apparatus of the senses, they are wanting also in those internal organs which concur most especially to their production, such as the digestive system, that of the general circulation, and that of the great secretions, which are remarked in animals.

“Such are the reasons also why the passions are so obscure in the Zoophytes, in worms, &c.; and why, in proportion as the organic life becomes more simple in the series of animals, and loses its important viscera, the passions are less observable.”

It is next remarked, that “the passions modify the actions of the animal life, though seated in the organic life.” The meaning of this is, that, though the seat of the passions, as was just observed, is in the viscera, or parts subservient to the mere existence and preservation of life, yet they often affect those parts which are usually subservient only to volition and reason. This is illustrated by the following case. A person, whilst in company, learns an event which he wishes to conceal. His countenance instantly changes, his brows are contracted, and his features moulded according to the nature of the passion. These are considered as sympathetic phenomena, arising from certain abdominal viscera suddenly affected by this passion, and which consequently appertain to organic life. When the man so far recovers himself as to be enabled voluntarily to exert the muscles of his countenance, the above effects cease, but the internal feeling is the same. The action of the brain has here surmounted that of the lower viscera, and animal life has resumed its proper influence and power over the voluntary muscles.

This chapter concludes with a section “on the epigastric centre, to show that it does not exist as some authors have assumed.” That the brain is the source of all voluntary motion, no one can question; but whoever has attempted to ascertain the seat of the passions, has generally ended as he began. This M. Bichat very justly ascribes to the variety of seats, as well as their uncertainty. In some men, parts are affected by the same passions as affect others in different viscera. Add to this, such is the great uncertainty of the impression from the affections of different abdominal or thoracic viscera, that the pain is no certain index of the seat or extent of the mischief. This chapter contains a long note on the sympathetic nerve, which the translator has passed over. Perhaps, had he omitted much more, the work might not have been less valuable, but it is certainly less faithful, as a translation. Even the passage to which the note refers is unfaithfully translated. These errors are unimportant; but it is our duty to notice them.

The conclusion is, that though for the sensations there exists one common centre in the brain, yet for the passions there is no certain seat; and that this confusion arises, in part, from the propinquity of all the vital viscera contained in the abdomen and thorax. The following illustrations are attached, to show the variety of sentiments dependant on the form of the cranium, and the probable existence of something of the kind in the lower viscera, on which the force and nature of the passions depend.

“ In determining the facial angle, Camper has thrown much light upon the proportion of intelligence enjoyed by the several classes of animals. It appears that not only the functions of the brain, but that all those of the animal life which are centered there, have this angle for the measure of their perfection.

“ It would be a very pleasing thing could we indicate in the same way a measure, which, assumed from the organs of the internal life, might fix the rank of each species with regard to the passions. The dog is much more susceptible than other animals of the sentiments of gratitude, of joy, of sorrow, of hatred, and of friendship: has he any thing more perfect in his organic life? The monkey astonishes us by his industry, his disposition to imitate, and by his intelligence; his animal life is certainly superior to that of every other species. Other animals, such as the elephant, interest us by their attachment, their affections, their passions; they delight us also with their address, and the extent of their intelligence. With them the cerebral centre and the organic viscera are perfect alike.

“ A rapid glance over the series of animals will shew us also, that in some of them the phenomena which arise from sensation predominate over those which have their origin in the passions; in others we shall see the latter superior in power to the former, and in others, again, a balance established between the two. These circumstances, which we remark in the long chain of animated beings, we may remark in the human species alone. In one man, the passions are the great principle of motion; the influence of his animal life is constantly surpassed by that of his organic life, and incessantly induces him to act in a way to which the will is almost a stranger, and which often entails upon him the bitterest regret, when his animal life resumes its empire. In another man, the animal life is the stronger of the two. In such case, the understanding seems to be augmented at the expence of the passions, the latter remaining in that silence to which the organization of the individual has condemned them.

“ That man enjoys the happiest constitution in whom the two lives are balanced, in whom the cerebral and epigastric centers exercise the one upon the other an equal action, whose intellect is warmed, exalted, and animated by the passions, but whose judgment makes him at all times master of their influence.

“ It is this influence of the passions over the actions of the
animal

animal life, which composes what is named the character. Character, as well as temperament, depends upon the organic life, possesses all its attributes, and is a stranger to the will in all its emanations; for our exterior actions form a picture of which the ground and design do indeed belong to the animal life, but upon which the organic life extends the shading and colouring of the passions. The character of the individual is constituted by such shades and colours.

“The alternate predominance of the two lives has been remarked by almost all philosophers. Plato, Marcus Aurelius, Bacon, St. Augustine, St. Paul, Leibnitz, Van Helmont, Buffon, and many others, have recognized in man two principles, by one of which we become the masters of all our moral actions, by the other the contrary. We have nothing to do with the nature of these principles. Our business is with their phenomena; we shall analyze the relations by which they are united.”

The seventh chapter, on the “general differences of the two lives with respect to vital power,” commences with an introductory section, which the author calls a digression, and apologises for its length. We could almost wish it had been longer, and yet we are fearful it would be to little account. Its object is to show that the study of animal life should always be distinct from what are called the accessory sciences. That even animal chemistry is fallacious, inasmuch as all our secretions differ at different periods, and under different circumstances. A lively illustration is given of the consequences which follow from the application of the language of one science to another. Had physiology been cultivated before the other branches of natural history, the author is persuaded that the language of the former would have been applied often to the latter. Rivers would have flowed from the tonic action of their banks; crystals united from mutual excitement; and planets have moved by irritating each other at their vast distances. Unreasonable as this may now appear, it is scarcely less absurd than the application of mechanical or chemical language to the operations or phenomena of living bodies.

The remarks on “the difference between the vital properties and those of texture,” should, in the description of the latter, have been confined to elasticity, the only property common to the living and dead parts of a body.

The “two kinds of sensibility, viz. the animal and organic sensibility,” refer principally to the difference between the sensibility of a part to certain impressions, and the communication of such impression to the mind or animal life. Here the author takes occasion to remark, that every part is capable of the latter under certain circumstances. Though periosteum,

periosteum, bone, and tendon, have been supposed insensible, yet this is only in degree. Under inflammation they are as sensible as other parts.

We would willingly follow our author through the remaining sections of this chapter, which contain many useful remarks, mixed with adages so simple, as to appear almost unnecessary in a philosophical work. In considering "the relation which exists between the sensibility of each organ to foreign bodies," the author gives a *slight* view of the theory of inflammation, slight indeed when we consider the importance of the subject, and the manner in which our English physiologist has traced all its leading steps.

In the chapter "on the development of organic life," M. Bichat enters into the question of moral sentiment, as connected with the passions; and, conceiving them the effect of an organization which cannot be altered, concludes that all we can expect from education is to moderate those which are bad, and improve the good.

The last chapter of this part of the work is on the termination of the two lives. Here we have a gloomy picture of old age, but interesting, inasmuch as it prepares us for the loss of life, or renders us almost insensible of the change. The animal life having ceased before the organic, reduces man almost to the condition of a vegetable. In all this the author confines himself to death from old age: the various other modes of dying are to be considered in the second part of this work. There is, however, a section at the close, to show that "organic life in natural death does not terminate as it does in accidental death." This we shall transcribe, as it leads to a few remarks which we have often felt impatient to make.

"The organic life remains with the old man after the almost total loss of his animal life, and terminates in a very different manner from that which is exemplified in the case of violent and sudden death. The latter has two periods, the first of which is marked by the sudden cessation of respiration and the circulation; the second by the slow and gradual extinction of the other organic functions.

"The parietes of the stomach, for instance, continue to act upon the aliment which may be found there; the juices of the stomach continue to dissolve it. The experiments of the English and Italian physicians upon absorption (experiments the whole of which I have repeated) have proved that this function not unfrequently remains in a state of activity after the general death of the body, and, if not as long as some have supposed, at least for a very considerable interval. Discharges of urine and fæces are often observed to take place many hours after sudden death.

"The process of nutrition also continues to be manifest in the
hair

hair and in the nails: the same would doubtless be the case in all the other parts, as well as in the secretions, could we observe the insensible movements of which their functions are the result. The heart of the frog being taken away, the capillary circulation may still be seen under the influence of the tonic powers. The body is very slow also in losing its animal heat.

“I might augment the above observations with a number of others, which would go to prove the same assertions; on the contrary, in the death which is the effect of old age, the whole of the functions cease, because they have each of them been successively extinguished. The vital powers abandon each organ by degrees, digestion languishes, the secretions and the absorptions are finished, the capillary secretions become embarrassed; lastly, the general circulation is suppressed. The heart is the *ultimum moriens*.

“Such, then, is the great difference which distinguishes the death of the old man, from that which is the effect of a sudden blow. In the one, the powers of life begin to be extinguished in all the parts, and cease at the heart; the body dies from the circumference towards the centre. In the other, life becomes extinct at the heart, and afterwards in the parts. The phenomena of death are seen extending themselves from the centre to the circumference.”

By this passage it is evident that Bichat refers to premature rather than to sudden death, and takes death by a violent blow in much too general a sense. Death from a violent blow on the stomach is frequently so instantaneous in every part, that we can trace no appearance or property of life either near the centre or circumference. It is when this effect is instantly produced on animals in previous high health, that Mr. Hunter and others have discovered the digestion of the stomach itself. It is curious to see how gently the French physiologist touches on this subject; and, without mentioning a name, or even hinting the most important part of the experiment, just refers us to the English and Italian physicians. On this subject we shall have more to say in our next Number, when we shall offer our analysis of the second part of this work.

An Inquiry into the Causes of the Motion of the Blood; with an Appendix, in which the Process of Respiration and its Connexion with the Circulation of the Blood are attempted to be elucidated. By JAMES CARSON, M.D. Physician to the Workhouse, the Fever Hospital, and to the Asylum for the Pauper Lunatics at Liverpool; and in Charge of the Military Hospital at that place. 8vo. pp. 250. Liverpool; printed for Longman and Co.

It is certain that in the whole study of natural history, nothing can be considered uninteresting or unimportant.

Yet it is the duty of every practical man, and such we must consider every physician, to recollect the first adage of our immortal master, ὁ βίος βραχύς. To read many such books as the one before us, and to study so as to become master of their full meaning, would consume more of the useful portion of life than any physician has to spare. It may be asked, How much more must it cost the writer? This we pretend not to answer. It is enough for us to complain of the great difficulty we felt in keeping up our attention, whilst we were attempting to analyse the work in such a manner as to interest the reader. But all our endeavours were fruitless. We do not complain of a book whose meaning is not obvious at first sight; on the contrary, we are ready to admit that few good things, if, at the same time, new, can be placed in so perspicuous a form as not to require a second, and, in some parts, a third perusal. But then we are always enticed to persevere by the practical advantages we see gradually opening before us. Without this we lose the great sweetener of labour,—the hopes of reward; and it is impossible to preserve our patience, even if we retain our temper.

We confess our disappointment was the greater in the present case, because, from the character of Dr. Carson, we had raised our expectation the higher. We expected at least a series of experiments, and fondly flattered ourselves that some light might have been afforded on the hitherto inexplicable subject of the passage of the blood from the arteries to the veins. Dr. Carson, indeed, suggests some advantages from his inquiry relative to the doctrine of inflammation; but we have in vain endeavoured to discover them. If we understand him, he conceives the circulation of the blood may be reduced to the laws of hydrostatics, and for this purpose that we need only attend to the resilient state of the lungs at every expiration, the alternate contraction and dilatation of the heart in each systole and diastole, and also to its confinement in the pericardium. We cannot suppose this is all that the book contains; and, in order to do justice to the author, we very eagerly sought for some detached part, which might be fairly extracted, as a specimen of his intentions, and the mode in which he has executed them.

The appendix seems to furnish the best chance of extracts least complicated with other matter. It commences with a general view of the process of respiration, and its connection with the circulation. As this subject is pretty generally understood, the reader will perceive the slight objections made by the author to the commonly-received doctrine; and, if he cannot

cannot exactly ascertain his whole meaning, he may at least learn his mode of expressing it.

“ In this explanation we discern a cause, interwoven with the structure of the lungs, rendered permanent and certainly efficacious, by the position and mechanism of the chest and its contents, clearly explanatory of all the phenomena, and, at all times, adequate to the accomplishment of that elevation which the diaphragm requires for the performance of its important functions.

“ When the diaphragm has been distended upwards, by the continued operation of the balance thrown, in the manner that has been explained, against its inferior surface to such an extent that the muscular fibres of which it is chiefly composed have been stretched beyond their natural length, these fibres, in consequence of the stimulus of pain, of volition to which this muscle is in a certain degree subservient, or of some other cause, exert a contractile effort, which, being more powerful than its antagonist, restores the diaphragm from the conical to the flat condition.

“ No sooner has the energy of the muscular action, agreeably to the nature of that action, been relaxed to a certain extent, than the antagonist but weaker power becomes in its turn predominant, and, by the constancy of its operation, restores the cone formed by the diaphragm to those dimensions from which it had been reduced, and, on its restoration to which, the dormant contractile power is again roused.

“ The contractile power of the diaphragm, in conformity with the laws of muscular motion, is irregular, remitting, and sometimes altogether quiescent. The elasticity of the lungs, on the other hand, is equal and constant. The superior energy of the former is balanced by the permanency of the latter. By the advantage which the inferior power, from the uniformity of its operations, is enabled to take of the remissions of its more powerful antagonist, the ground which had been lost is recovered, and the contest prolonged; that contest in which victory declaring on one side or the other is the instant death of the fabric.

“ If the question were asked, What constitutes the main spring of life? there could, I think, be no hesitation in replying that it consists in the contest which is maintained between the elasticity of the lungs and the irritability of the diaphragm, supposing the heart, as it certainly must be considered, an appendage of the latter.”

Towards the close, the author attends to a difficulty in one part of his theory which, perhaps, has already occurred to the reader.

“ The lungs of the unborn fœtus, as they are in a state of complete collapse, can have no resiliency, and, therefore, no influence in producing the expansion of the chambers of the heart after contraction, in the manner supposed in the adult. But the heart beats and the blood circulates in the fœtus in utero as well as

after birth. Here then is a case in which the heart must be dilated after contraction, without the assistance of that cause to which this effect has been chiefly ascribed in the preceding inquiry; and, if the effect can be produced without the supposed cause in one instance, it may be urged that it is unnecessary and unreasonable to have recourse to it in any other.

“With a view to the explanation of the manner in which the blood is circulated in the fœtus, and to the removal of the objection which has been stated, the few following observations seem necessary.

“No observations, according to my recollection, have been recorded, by which the force and velocity of the circulation in the unborn fœtus have been ascertained. As some of the most important offices which the circulation serves after birth are otherwise supplied in the fœtus, the same vigorous circulation would not appear in that situation to be necessary. The equal distribution of heat through the body, and the preservation of it in the same temperature in different climates, offices requiring the aid of the circulation after birth, are before it indebted for the requisite aid to that of the mother. The frequent return of the blood to the lungs for renovation, so indispensable after birth, is, for the same reason, unnecessary in the fœtus. The chief office which the motion of the blood serves before birth, would appear to be the conveyance of nourishment to the different parts of the frame; and, to that purpose, a languid circulation would seem to be better adapted than a motion of greater rapidity.

“On reference to the part of the preceding inquiry in which the causes of the expansion of the chambers of the heart are detailed, it will be found that the walls of the ventricles of the heart derive the property of dilating themselves after contraction, to a certain degree, from their natural structure. In consequence of the circular direction of the muscular fibres, it was there contended that the dilatation of the chambers was the necessary effect of the simple relaxation of these fibres. This inference from the structure of the heart appeared to be confirmed by observation on the hearts of cold blooded animals, newly abstracted from the body.

“But upon considering the situation of the contents of the chest, and of the diaphragm of the fœtus, another cause will in this case be found for the dilatation of the heart after contraction. The diaphragm of the fœtus is not pushed up into the chest, as is generally supposed, but is drawn or held up to occupy a part of the space which is afterwards filled by the dilated lungs. This, so different from that which it assumes after birth, may easily be supposed to be a forced position of the diaphragm. The elastic substance which unquestionably enters into its composition, must be at all times, to a certain extent, upon the stretch. The heart, in consequence of the resiliency of the diaphragm, and the situation into which it is forced in the fœtus, must be drawn downwards from the lungs. The diminution of pressure arising among the
contents

contents of the chest, from the tendency which the diaphragm has to separate from the lungs, will necessarily, upon the fibres of the heart becoming relaxed, and its boundaries dilatible, cause an influx of blood from the veins into the organ; and the dilatation of its chambers, in the same manner, though, perhaps, not with the same force, as that with which the diastole of the heart has been supposed to be effected after birth by the resiliency of the lungs."

Whatever objections may be made to the above, we shall forbear to notice them. Our wish is to preserve our usual impartiality by as fair a selection as possible. If we have omitted any passage which would have thrown greater light upon his theory, our pages are open for the author's remarks, and our minds for his instructions.

A Chemical Chart or Table, exhibiting an Elementary View of Chemistry, intended for the Use of Students and young Practitioners in Physic; also to revive the Memory of more experienced Persons; adapted for hanging up in public and private Libraries. Dedicated, by permission, to GEORGE PEARSON, Esq. M.D. F.R.S. Senior Physician to St. George's Hospital, of the College of Physicians of London, &c. &c.; by ROBERT CROWE, Surgeon in the Royal Navy.

THE above title so amply expresses the intention of the work, that we shall only offer a general detail of the manner in which it is arranged, and a few specimens of the mode of execution.

The table is divided into three sections. The first contains a definition and general history of chemistry, as far as relates to its principal objects, viz. air, earths, alkalies, acids, &c. The second a description of the simple substances, with their usual arrangement. The third a short history and description of the compound combustibles; also an explanation of the secondary compounds and hydro-sulphurets.

Under the first, after a very general history, are arranged the different species of earths, alkalies, and metals.

"Section the First.—*Chemistry*, in a general point of view, referable to those changes which are perpetually taking place amongst the ultimate or constituent particles of matter, may be divided into three parts:—1st. A description of the component parts of bodies, called *simple substances*, from not yet being decomposed or satisfactorily shewn to be compounds. 2d. An account of the compound bodies produced by the union of simple substances. 3d. An account of the nature of the power which in-

duces the particles of different bodies to combine, called affinity, which is, according to the experiments of Sir H. Davy, nothing more than electrical attraction produced by the different electrical states of different kinds of matter.

“*Air*, Atmospheric, composed of oxygen and nitrogen in the proportion of about 22 of the former and 78 of the latter; contains also water, carbonic acid, hydrogen, &c.; is an elastic expansile fluid, necessary for the support of animal and vegetable life—sp. g. [i. e. specific gravity] 1 to 1000.

“*Water*. Composed of hydrogen and oxygen, proportion 85 by weight of the former, to 15 of the latter; found in a state of solidity, liquid, vapour, and combined with other bodies; contains in its liquid state a variety of substances; each substance, according to their nature, altering its properties, discovery of which forms an important object of chemical analysis; two methods adopted, viz. precipitation and evaporation.

“*Earths*, nine in number, composed of a metallic base united with oxygen; some are insoluble in water, some little or no taste, no smell, fixed, incombustible, and incapable, when pure, of being fused; specific gravity not exceeding 4.9.

“*Alkalies* have a pungent acrid taste; neutralize acids turn vegetable blue colours to green, render oils miscible in water, and, when mixed with inflammable bodies, the compounds absorb oxygen. Three kinds, namely potash, soda, and ammonia; until lately the two first generally supposed to be elementary bodies, Sir H. Davy has discovered them to be decomposable, consisting of a metallic base united with oxygen. Ammonia, compounded of nitrogen and hydrogen. Its gas liquified by $\frac{1}{400}$ water—seldom pure, usually combined with carbonic acid: in this state they are termed carbonates; when deprived of this, pure or caustic.

“*Acids*. Word acid at present denotes all bodies which, when applied to the tongue, excite the sensation called sour; change the blue colour of vegetables to red; combine with alkalies, earths, and metallic oxides, producing a class of bodies called binary salts:—consist of oxygen, united to one or more bases. Some of the combustible bases combine with two doses of oxygen, sulphurous acid containing the smallest dose of oxygen, sulphuric containing a maximum of oxygen; agreed by chemists to denominate the double salts from the acids which they contain. The alkali, earth, or metallic oxide, combined with that acid, being the base of the salt; thus sulphate of soda denotes a compound of sulphuric acid and soda. Some acids combine with two bases at once, and form also what are called triple salts, distinguished by subjoining the names of both the bases; thus the salt composed of tartaric acid, potash, and soda, is called tartrate of potash with soda. Some salts combine with an additional dose of their acid; others with an additional dose of their base: the first distinguished by prefixing the preposition super to the usual name, the second that of sub.; e. g. super-sulphate of potash, and sub-bonate of soda.”

After

After this follows an enumeration of all the alkalies, with a short description of each; next of the earths. We shall offer as specimens the last of these and the first of the metals, as they follow in order.

“*Glucina*, first discovered by Vauquelin in the two minerals called beril and emerald, sp. g. 2. 976—taste sweet.

“*Gold*, the most ductile and malleable of all the metals, imported principally from Spanish South America; when pure, soft, yellow colour, sp. g. about 19. 361. of considerable lustre, destitute of smell or taste, not altered by exposure to air, combines with most of the metals and forms a variety of alloys, may be beaten out into leaves only the 280,000th part of an inch, only soluble in nitro muriatic or chloric acid, from which it may be separated by tin, affording a precipitate of a beautiful purple colour. Gold coin contains one 12th of alloy, of silver or copper. One lb. of standard gold is coined into 44 half guineas.”

The account of metals includes all the latest discovered.

The acids follow, with all their compounds, extremely well arranged for perspicuity and brevity, but in a manner which we cannot explain without imitating the table.

The second section includes the divisions of simple substances, hitherto undecomposed, commonly, but without sufficient knowledge, called elements. These are, first, imponderable or unconfined substances, viz. light, caloric, and electric matter; second, substances which make the basis of acids, and maintain combustion, as oxygen, chlorine, fluorine, and iodine; third, inflammable, and denominated simple combustibles, as hydrogen, charcoal, sulphur, and phosphorus; fourth, unflammable and unmetalized basis of acids, called simple incombustibles, as nitrogen and boron or boracic acid deprived of oxygen by the ingenious discovery of Sir Humphry Davy; fifth division is confined to metals.

The third section contains the *compound combustibles*, usually composed of carbon, hydrogen, and oxygen. These are very numerous, comprehending almost the whole of the animal and vegetable kingdom. Those most important in chemistry and medicine are, however, with much propriety, comprised under alcohol-ethers, volatile or essential oils, fixed oils, and bitumens. The latter are divided into two classes, bituminous oils and bitumina: the first confined to naphtha or petroleum, and mallua or sea-wax; the bitumens are more divided, their importance much increasing, as forming, with different proportions of other combinations, our pit-coal, the value of which is greatly enhanced by the application of its hydrogen to the gas lights.

The

The secondary compounds, from their complicated nature, can be only slightly touched upon.

“The term (says our author) secondary compounds means a combination of the primary compounds with each other;—may be arranged under the five following heads: first, combinations of earths with each other, and with metallic oxides; second, combinations of earths with alkalies, called glass; third, combinations of acids with alkalies, earths, and metallic oxides called salts; fourth, combinations of sulphuretted hydrogen with alkalies, earths, and metallic oxides called hydro-sulphurets; and, fifth, combinations of oils with alkalies, earths, and metallic oxides called soaps.

“Hydro-sulphurets, principally employed in chemical analysis, enable chemists to separate the metallic oxides from alkalies and earths. Their solutions precipitate almost all the metallic oxides from their solutions; distinguished by the colour, as silver, black; antimony, orange; arsenic, yellow; &c. &c.”

Such is the nature of this table, the value of which we need not insist on. The study of chemistry is now become so complicated, that it might have appeared impracticable to condense its various objects. We can only say that Mr. Crowe has succeeded much better than we could have expected, that we have hung his table in our different studies, and doubt not shall often have occasion to refer to it. If, under these examinations, we should meet with errors or unsatisfactory information, we shall not fail to give him occasional hints for a future edition. At present, we can only regret several typographical errors, which are, however, too palpable and unimportant to mislead the reader.

BIOGRAPHY OF THE LATE DR. DENMAN.

DR. THOMAS DENMAN was born on the 27th of June, 1733, at Bakewell, in the county of Derby, and was the second son of a respectable apothecary in that town, where he was educated at the grammar school. His father died in the year 1752, and he for some time assisted his elder brother, who succeeded to the business; but in his 21st year he came, with the slender patrimony of 75l., to London, where he attended St. George's Hospital several months, and two courses of lectures on anatomy. He then procured an appointment as surgeon's mate in the navy, and, being made surgeon in 1757, through the interest of the Duchess Dowager of Devonshire, he, after a cruise of seventeen months off the coast of Africa, was appointed to the *Edgar*, a new 60-gun ship, commanded by Captain, afterwards Admiral, Drake, with whom he continued till, on the conclusion of peace in 1763, he left the navy. During his nine years' service, he formed many valuable friendships, which he preserved through life, particularly with the amiable and excellent officer whose name has been mentioned:

mentioned: his mind was enlarged by general reading, and by visiting various parts of the world; and, having been present at most of the important naval operations of that war, he materially improved his medical skill and knowledge. At the siege of the Havannah (as on a former occasion, when he assisted in the hospital at Gibraltar, then containing not less than 1100 patients), he contracted a dangerous illness, from too close an attendance on the sick and wounded. On returning to his native country, he continued, as before, to pursue his professional studies in London, and attended the Lectures on Midwifery then given by Dr. Smellie; but, obtaining, in 1764, a diploma from the University of Aberdeen, he endeavoured to establish himself at Winchester. This attempt proving unsuccessful, he again took up his residence in the metropolis, where his prospects were so little flattering, that he actually made an effort to resume the situation of a surgeon in the navy, but was unable to procure a warrant. Under these circumstances, the surgeoncy of one of the royal yachts, which he owed to the influence of Lord John Cavendish, and the friendly recommendation of Captain Drake, and which brought a salary of 70*l.* a year, without materially affecting his London practice, afforded an important addition to his small income. About the same period he became more generally known by the publication of some medical tracts, and commenced those Lectures in Midwifery, in conjunction with the late Dr. Osborne, which they continued to deliver for fifteen years with great reputation. In the same year he was appointed joint physician and man-midwife to the Middlesex Hospital. With these aids, and by a rare union of patience, industry, and frugality, with an ardent temper, an independant spirit, an honest ambition, and singular zeal in his profession, he was enabled to emerge, by slow degrees, from obscurity to the extensive practice and eminent character which he so long enjoyed. He was appointed licentiate in midwifery by the College of Physicians in 1783, and six years after was elected an honorary member of the Edinburgh Royal Society. Dr. Denman's progress towards the first practice was, however, the more slow, because Dr. Hunter had long been in possession of the public confidence, and because Dr. Ford was at the same time in extensive business. But, when he had reached the summit of his branch of the profession, Dr. Denman kept his station with a firmness of which there have been few examples. This arose from his full and well grounded knowledge, from his strong natural sagacity, from the most perfect uprightness of conduct, and from the benevolence of his character. In 1791, Dr. Denman purchased a small country-house at Feltham, near Hounslow, and in some measure withdrew from business; but he never quitted it entirely, and, to the latest period of his life, preserving the unabated confidence of the public, he may be truly said to have possessed that of the members of his own profession even in a greater degree. At the very advanced period to which he lived, he retained, to a wonderful extent, the vigour of his body, and, quite unimpaired, the vigour of his mind; but what

is still more singular, he retained also, without decay, all the kindly affections of his nature, with all the cheerful animation of youth, and exercised an active benevolence to the very last.

In the year 1770, Dr. Denman married Elizabeth, the youngest daughter of Alexander Brodie, a respectable linen draper in London,—a companion well suited to him from the uprightness of her mind, the soundness of her religious principles, and the benevolence of her character. They had a son and two daughters: his wife and all his children survive him.

It is believed that Dr. Denman's earliest publication was a treatise on Puerperal Fever, which appeared about the year 1770, and was soon followed by a Letter to Dr. Huck on the Construction and Use of Vapour Baths. From this period, he was constantly in the habit of printing short tracts on subjects connected with his branch of the profession, which have been, from time to time, incorporated in the several editions of his Aphorisms on the Application and Use of the Forceps and Vectis, and of his Introduction to the Practice of Midwifery, both of which works are too well known in the medical world to require, in this place, particular notice. They have each gone through five editions; and a sixth of the latter was nearly prepared at the time of the author's death. One of the former editions of it was in quarto, and was accompanied by fifteen engravings, made at a very considerable expence, on the generation and parturition of the Human Species, and of Animals. The preface, independantly of its professional merits, exhibits much general knowledge and information, and has been highly estimated by good judges as a literary composition. The work has been translated into French, and in that language also is believed to have passed through more than one edition.

Several papers, written by Dr. Denman, will be found in the 5th, 7th, and 11th volumes of the London Medical Journal, conducted by Dr. Foart Simmons. After that publication was discontinued, he became a frequent contributor to the London Medical and Physical Journal. He was among the first to recognize the important discovery of his friend and pupil Dr. Jenner; and having satisfied his own mind of its truth and utility, he did not hesitate to announce his conviction, and to support it by some striking facts, the result of his own inquiries, at a time when vaccination had made a comparatively small progress in public opinion. Two letters by him on this subject appeared in the 3d and 4th volumes of the work last mentioned. Communications more immediately connected with his own pursuits were published in the 2d and 14th volumes. In the 27th he wrote a paper on the Structure of Cancerous Parts, and a Description of a curious Case of Polypus; and in the 34th another paper on Cancer.

He published in 1809, in the 3d volume of the Transactions of a Society for the Improvement of Medical and Surgical Knowledge, a very valuable paper on Excrescences of the Womb; and, in 1810, a pamphlet consisting of treatises on the Rupture of the Uterus, on the Snuffles in Infants, and on Mania Lactea.

a very

Dr. Denman always felt a strong desire to discover a remedy for cancer, and deemed it almost criminal in medical men to despair of an object so interesting to humanity. To pronounce that dreadful disease incurable, he thought was in some degree to make it so; and his mind was continually on the watch for information on the subject. In 1801, indeed, he was instrumental in forming a charity for the exclusive relief of persons afflicted with cancer, and recommended it by a circular paper, which may be considered as an admirable specimen of the method to be pursued in conducting medical enquiries. Some account of that establishment, which was given up after a trial of a few years, is contained in a pamphlet "on the Cure of Cancer," published by him in 1810: in the following year he wrote observations in this Journal on the review of his pamphlet, which it had given. When Mr. Young made public his mode of treating cancer, Dr. Denman was disposed to flatter himself that this great end was on the eve of being accomplished; he gratuitously attended several patients under the care of that gentleman, in order to become acquainted with his practice; and, having thus ascertained that it was both innocent and beneficial, and believing that it held forth a fair promise of the most important consequences, he introduced it to the public attention by a letter which was inserted in the October number of this Journal. With the same view, he prepared for the press a second edition of his pamphlet on the subject, subjoining a full statement of Mr. Young's system, and his own remarks upon it.

Good sense and practical utility are the leading features in all Dr. D.'s compositions. They not only explain with clearness what had been before discovered, and add the sanction of the author's experience, where it accords with former opinions, but they perform the still more valuable service of correcting such opinions when found to be erroneous, and of enriching the stock of previous knowledge with original observations. It may be stated in particular that the formidable disease in children called the malignant snuffles, was very little known till it was described by Dr. Denman, who had also the good fortune to point out a mode of treating it, which is generally successful. The evolution of the child, in certain circumstances, by the action of the uterus, is a most curious and important fact, first discovered by him. He was the first also who recommended, in cases of retroverted uterus, the frequent emptying of the urinary bladder by a catheter, as all that was necessary for the restoration of the womb to its proper position. The excitement of premature labour, for the preservation both of the mother and the child, in certain cases of deformed pelvis, is a most important operation suggested by him, which has been successful in almost every instance where it has been adopted. In convulsions preceding labour, particularly where the pulse is slow, he recommended copious bleeding, instead of nervous medicines, and advised that there should be no artificial delivery, until the head of the child shall have passed through the os uteri. These are examples of important practical improvement, which

will preserve Dr. Denman's name in remembrance, and give him a just claim to the gratitude of posterity.

This enumeration of his works is most probably incomplete: but those which have been mentioned will sufficiently prove that the author was constantly employed in endeavouring to improve the medical art, and diminish the extent of human suffering. It is apprehended that they also exhibit an understanding peculiarly gifted with all the faculties, and regulated by all the dispositions, that are most favourable to the investigation of truth. And, when it is remembered that they were all composed in the midst of unceasing professional engagements, always severe, and frequently both harassing and afflicting, they will be allowed to evince an unwearied activity and perseverance in the pursuit of benevolent and useful objects, which are excelled only by the motives that prompted their exertion.

Dec. 22, 1815.

For the above we are indebted to a source the faithfulness of which cannot be questioned.—*EDIT.*

MEDICAL AND PHILOSOPHICAL INTELLIGENCE.

KING v. TAUNTON.

AS the event to which the following prosecution refers will probably never occur again, we have thought it desirable to preserve a record of the form of such an indictment, which, we hope, may at least entertain our readers. It may also instruct them in the construction of a law hitherto imperfectly understood. We shall only make one remark on legal tautology, viz. that, instead of rendering a subject more precise and distinct, it seems to us, who are accustomed to medical accuracy, to confound all distinction: words, which by degrees have found their appropriate meaning, being used as synonymous.

*“Of Trinity Term, in the Fifty-fifth of
King George the Third.*

Middlesex.]
Be it remembered, that on Tuesday next after three weeks from the day of the Holy Trinity, in the fifty-fifth year of the reign of our Sovereign Lord George the Third, by the Grace of God, of the United Kingdom of Great Britain and Ireland, King, Defender of the Faith, in the county of our said Lord the King, before the King himself, at Westminster, in the county of Middlesex, By the oath of twelve jurors, good and lawful men of the said county of Middlesex, now here sworn and charged to enquire for our said Lord the King, for the body of the said county, It was presented as followeth (that is to say):

Middlesex—The jurors for our Lord the King, upon their oath, present that *John Taunton*, late of the parish of St. Andrew, Holborn, in the county of Middlesex, surgeon, on the twenty-third day of March, in the fifty-fifth year of the reign of our Sovereign Lord George the Third, by the grace of God of the United Kingdom of Great Britain and Ireland, King, Defender of the Faith, and on divers other days and times between that and the tenth day of June, in the same year, with force and arms,

at

at the parish aforesaid, in the county aforesaid, unlawfully and injuriously did inoculate and infect Edgar Cooke, an infant of tender age, to wit, about the age of one year; George Benman, an infant of tender years, to wit, about the age of three years; Eliza Briggs, an infant of tender age, to wit, of the age of fifteen months; and divers other infants of tender years, whose names to the jurors aforesaid are unknown, with a certain contagious, infectious, and dangerous sickness and disease, called the small-pox, by means whereof the said Edgar Cooke, George Benman, William Lockett, Eliza Briggs, and the said divers other infants, on the said twenty-third day of March, in the year aforesaid, and on the said other days and times at the parish aforesaid, in the county aforesaid, became and were ill and sick of and with the said contagious, infectious, and dangerous sickness and disease: And that the said John Taunton, well knowing the premises aforesaid, after he had so inoculated and infected the said Edgar Cooke, George Benman, William Lockett, Eliza Briggs, and the said divers other infants, and whilst the said Edgar Cooke, George Benman, William Lockett, Eliza Briggs, and the said divers other infants, were ill and sick of and with the aforesaid contagious, infectious, and dangerous sickness and disease as aforesaid, to wit, on the said twenty-third day of March, in the year aforesaid, and on the said other days and times, with force and arms, at the parish aforesaid, in the county aforesaid, unlawfully and injuriously did cause and procure the said Edgar Cooke, George Benman, William Lockett, Eliza Briggs, and the said divers other infants, to be taken, carried, and conveyed into and along a certain public street and common highway called Hatton Garden, situate and being in the parish aforesaid, in the county aforesaid, and into and along divers other public streets and common highways there also situate, and being used for all the liege subjects of our said Lord the King, on foot, and with horses, coaches, carts, and carriages, to go, return, pass, ride, and labour, in, along, and through; in and along which said several streets and common highways these divers liege subjects of our said Lord the King were then, to wit, on the said twenty-third day of March, in the year aforesaid, and on the said other days and times, going and returning, passing, riding, and labouring; and near unto and by divers dwelling-houses, habitations, and residences of divers liege subjects of our said Lord the King, then and there dwelling, inhabiting, and residing, to wit, on the said twenty-third day of March, in the year aforesaid, and on the said other days and times, at the parish aforesaid, in the county aforesaid, to the great danger of infecting with the said contagious, infectious, and dangerous sickness and disease called the small-pox, all the liege subjects of our said Lord the King, who, on the several days and times aforesaid, were in and near the aforesaid public streets and common highways, dwelling-houses, habitations, and residences, and who had not had the said disease and sickness: to the great damage and common nuisance of all the last-mentioned liege subjects of our said Lord the King, to the evil example of all other persons in like cases offending, and against the peace of our said Lord the King, his crown, and dignity.

Second count.—And the jurors aforesaid, upon their oath aforesaid, do further present that the said John Taunton, on the said twenty-third day of March, in the fifty-fifth year aforesaid, with force and arms, at the parish aforesaid, in the county aforesaid, unlawfully and injuriously did inoculate and infect the said Edgar Cooke with the aforesaid contagious, infectious, and dangerous sickness and disease called the small-pox, by means whereof the said Edgar Cooke, on the said twenty-third day of March, in the year aforesaid, and continually afterwards from thence until the third day of May, in the same year, at the parish aforesaid, became and was ill and sick of and with the said contagious, infectious,

and dangerous sickness and disease; and that the said John Taunton, well knowing the premises last aforesaid, after he had so inoculated and infected the said Edgar Cooke, as last aforesaid, and whilst the said Edgar was ill and sick of and with the aforesaid contagious, infectious, and dangerous"—repeating the same words as in the former count, and concluding with "the evil example of all other persons in like cases offending, and against the peace of our said Lord the King, his crown, and dignity."

The third count repeats the same relative to George Burman.

Fourth count recounts the same of William Luckett, in the same words.

Fifth count recounts the same of Eliza Briggs—the whole of the indictment occupying fifteen folio pages of lawyer's sheets.

Mr. Taunton vaccinated his own children, was one of the first subscribers to the London Vaccine Institution, and has been constantly on the board of managers of that charity: at the same time he felt it his duty to inoculate such for the small-pox who, through prejudice or otherwise, refused vaccination. Many of the poor who applied for gratuitous advice, applied also for inoculation for the cow-pock, and some for the small-pox. No preference or recommendation was given to either—for vaccination the matter is always obtained from Dr. John Walker. Such was Mr. T.'s practice till the 11th of June, when the report of Burnett's sentence was published, *from which day* no person applied for inoculation who did not receive a copy of the following notice:—"You are desired to return in seven or eight days, to say how the child is, but on no account to expose it to other children: if required, it will be visited." On the 19th June, Mr. Taunton was arrested on the Lord Chief Justice's warrant: he gave bail, and directed his attornies to defend the cause, which was to have been tried on Friday, Dec. 8th, in the Court of King's Bench, where Mr. Taunton attended with his witnesses. Sir William Garrow, the attorney-general, and counsel for the plaintiff, stated to the court that he should not proceed in the present case, as he learnt that the defendant had given notice, with every inoculation, not to expose their children while the disease was out, and that *this had been done from the time that the sentence of that court in the case of Burnett had been known.*

The opinion given by the court was, that all persons were at liberty to inoculate, or to have their children inoculated, for the small-pox; but to expose publicly children or others while the disease was out full upon them, was an indictable offence.

Mr. Taunton always declared his determination of trying the question, in defence of his practice; but on the day of trial his solicitor expressed himself thus: "The Attorney-general seems to have been aware of the *real objects* of the prosecution, and on the behalf of his client to have made the most polite retreat in his power, but which we could not possibly *prevent.*"

From the reports in the various newspapers, it would seem that inoculation for the small-pox had been discontinued from the time of the present prosecution:—that is not true; patients are inoculated

lated now, and have been as at all former periods, but none are allowed to go abroad with the disease out upon them.

The persons most conspicuous in the information and prosecution were Mr. Barnett and Mr. Charles Murray: the former, surgeon in Smithfield Bars, who must have been under some erroneous impressions, as he has often obtained small-pox matter from Mr. Taunton's patients; the latter is a *lawyer* in Sun-court, Cornhill, and holds an office of some kind in the National Vaccine Institution.

Royal Society.—On St. Andrew's Day, this Society held their annual meeting, at their apartments in Somerset-place, when the President, the Right Hon. Sir Joseph Banks, in the name of the Society, presented the gold medal (called Sir Godfrey Copley's) to David Brewster, LL.D. for a paper "on the Polarisation of Light by Reflection from Transparent Bodies," printed in the last volume of the Philosophical Transactions. Afterwards the Society proceeded to the choice of a Council and Officers for the ensuing year, when, on examining the lists, it appeared that the following gentlemen were elected:—

Of the Old Council.—The Right Hon. Sir Joseph Banks, Bart. K.G.C.B.; Sir Charles Blagden, Knt.; Samuel Goodenough, Lord Bishop of Carlisle; Taylor Combe, Esq.; Davies Giddy, Esq. M.P.; Sir Everard Home, Bart.; Samuel Lysons, Esq.; George, Earl of Morton, K.T.; John Pond, Esq.; William Hyde Wollaston, M.D.; Thomas Young, M.D.

Of the New Council.—John Barrow, Esq.; Mark Beaufoy, Esq. Henry Browne, Esq.; Sir Humphry Davy, Knt.; Philip, Earl of Hardwicke, K.G.; Edward Howard, Esq.; John Latham, M.D. Pres. Col. Phys.; Thomas James Mathias, Esq.; Sir John Nichol, Knt. M.P.; George, Earl of Winchelsea, K.G.

Officers.—President, the Right Hon. Sir Joseph Banks, Bart. K.G.C.B. Treasurer, Samuel Lysons, Esq. Secretaries, William Hyde Wollaston, M.D. and Taylor Combe, Esq.

After the election, the members of the Society dined together, as usual, at the Crown and Anchor Tavern in the Strand.

Royal Society of Sciences of Copenhagen.—Mr. WAD, Chancellor of State, exhibited an elegant and faithful model in wax, of a very rare *amphibium*, called *Proteus anguinus*; a piece of *aerolite*, containing *iron* and *nicolum*, which had been long preserved in the town-house of Elbogen, in Bohemia; and a new fossil (*gurtrosian*), consisting of calx carbonica and talcum carbonicum.

Royal Medical Society of Copenhagen.—Mr. WENDT has presented two memoirs; one upon *antimonium tartarizatum*, and the different ways of preparing it; the other, on the exhibition of the root of the *eucubalus viscosus* as a medicine, and its operation upon the human system.—Mr. JACOBSON also read a paper upon the noxious effects of bitter almonds.

One of the German journals, some time ago, announced the death of the celebrated SCARENGER, by the application of prussic acid to his naked arm. Before this, the Batavian Society, after a repetition of several of Mr. Brodie's experiments, had concluded with very different results. We were unwilling, therefore, to insert either, till we could gain better information. It now appears that valuable character died apoplectic.

PRIZE QUESTIONS.—The *Cercle Médical de Paris* had offered the following queries as the subjects of a prize dissertation for 1814; but having received no essay that was satisfactory, the period was extended to 1815: and now again, for a similar reason, it is protracted to 1817.

1. What is the nature of the disease known under the name of Rabies (*de rage*)? 2. What are the symptoms which characterize it in man and in the lower animals? 3. Is it ever spontaneously developed in man? 4. Are there many species of it, and what are these? 5. Are they all contagious in man, and how are they communicated? 6. Whether should the morbid effects which follow the bite of a rabid animal be attributed to a particular virus, or to the nature of the bite, or to the physical lesion of the wounded parts, or to terror? 7. What is the best mode of treatment, both prophylactic and curative.

The prize, which is a gold medal worth 300 francs, shall be adjudged at an extraordinary public sitting of the society in March 1817. The dissertations to be written in French or Latin, with a motto; and to be transmitted, free of postage, with a sealed cover containing the name of the author, to M. le Docteur Chardel, Secrétaire Général du Cercle Médical, rue Cassette, No. 23, à Paris, before the end of 1816.

The *Royal Academy of Sciences, Belles-Lettres, and Arts, of Rouen*, having received no essay on the question which it proposed for 1814, and continued for 1815, have withdrawn it; and now propose the following as the subject of a prize dissertation for 1816:

“To show, abstracted of every hypothesis, the consequences which naturally result from the observations and experiments hitherto made relative to the motion of the sap in plants; to confirm these results by new observations and experiments; and to point out how the facts already known regarding the movements of vegetable fluids may be rendered useful to the art of cultivation?”

The prize, a gold medal worth 300 francs, will be adjudged in the public sitting of 1816. The essays, written in French or Latin, must be sent, free of postage, to M. Vitalis, Perpetual Secretary of the Academy, before the 1st of June, 1816.

The *Society of Sciences at Haerlem* has also proposed the following as subjects of prize dissertations:

I. How far has chemistry developed the ultimate and proximate constituent

constituent principles or parts of plants, particularly of alimentary plants; and how far can we ascertain, from the knowledge we possess on this subject, which plants are the most salutary to the human body in the state of health, and in some diseases?—II. As the antiseptic property of sea-salt does not appear to depend solely on the muriate of soda, but also on the muriate of magnesia which is mixed with common salt; it is required to determine by experiment—1. Which of these salts is the most powerful antiseptic? 2. What is the proportion in which the two salts ought to be combined to resist, for the longest time, the putrefactive process, without communicating a disagreeable taste to the substances they are intended to preserve? 3. Can muriate of magnesia alone be used in any case, particularly in voyages to warm climates? 4. Can salt-petre works be established with advantage in places where the water is impregnated with the products of putrefaction? 5. What are the causes of the contagious diseases which prevail in besieged places? and what are the best means which our physical and chemical knowledge indicate for their prevention or destruction? A history of these diseases is not required to be given, neither is it necessary to state the modes of treating them, but an exposition, founded on experiments, of their causes; and particularly the physical and chemical means requisite for overcoming them. 6. Are acid fuminations, such as those of muriatic acid, and particularly of the oxymuriatic acid, the great efficacy of which is well known, always sufficient, in every case, for destroying the miasma, or morbid matter spread in the atmosphere: or is the opinion of some physicians more correct, that under certain circumstances, instead of the acids or oxydizing matters, alkaline or deoxydizing substances, such as ammonia and sulphurous acid, ought to be employed? 6. The practice of agriculture having proved that, in the first stage of the vegetation of corn, and other plants cultivated until they flower, the fertility of the ground is scarcely diminished, although, after the fructification and maturity of the grains, the same soil is considerably impoverished and robbed of its fecundity: what is the cause of this phenomenon, and how far would the solution of it furnish rules, the practice of which would perfect the culture of the soil? 7. As atmospheric air is sooner rendered unrespirable by smoking coals than by ardent coals, although the latter produce a larger proportion of carbonic acid gas; the society is desirous of having the change which atmospheric air sustains from smoking coals examined, and compared with that which is produced by ardent coals, so as to ascertain the cause of the sudden asphyxias occasioned by it. 9. As the chemical analysis of vegetables is not yet arrived at the degree of perfection desirable, the society offers the double gold medal, worth 300 Dutch florins, to any one who, by new experiments, shall carry the analysis of plants to the highest degree of perfection.

The prize offered for each of these questions is a gold medal, or 150 Dutch florins, whichever the author may prefer: and the society

ciety will be better pleased if the authors who may be candidates forbear from loading their essays with extraneous matter, and adhere strictly to the question.

The dissertations may be written in Dutch, French, Latin, or German, and should be transmitted, accompanied with a sealed cover inclosing the name of the author, before the 1st of January 1816, to M. Van Marum, Perpetual Secretary of the Society of Haerlem.

The University of Copenhagen proposed the following prize question for the present year:

Quænem est aquæ puræ frigidæ vis in sanitatem tuendam et morbos profligendos?

A French journal speaks of milk as a remedy for the poison of certain mushrooms. Before we trust to such a remedy, several experiments must be made on other animals, with such mushrooms, exhibited with and without milk.

Craniology.—Mr. FORSTER has of late been making some observations on the heads of insane persons in some public mad-houses, with a view to determine how far the particular organization of the head appears to modify the character of the mania. He has found in the majority of cases a very striking connexion, particularly with regard to the melancholic insane, who have been found to have the parts of the brain which, according to the new system, produce the sentiment of fear, much developed. It is to be hoped that repeated observations of this kind may lead to important discoveries in the history of this interesting, but at present obscure, class of disorders.

Dr. SPURZHEIM has given an introductory lecture on the new anatomy to a scientific class of above 300 persons at Dublin.

A physician at Carlsruhe has been repeating the exploded acids in syphilis, and, of course, with success. Can we blame our neighbours, when we reflect on our own past folly, who had the advantage of Mr. Hunter's accuracy to direct us better.

The following case can only be accounted for on the explanation of Gall and Spurzheim, as adopted by Sir Everard Home.

A case of chronic hydrocephalus occurred in the practice of Dr. Read of Kilmarnock, which shows the great changes that may take place in the brain, without materially impairing the functions of that organ. The subject of the disease was a boy five years of age, in whom an enlargement of the head was first perceived when he was three months old, which increased until his death (produced by an epidemical disorder), at which period the dimensions of the head were as follows:—Round the head, by the brow and occiput, 29½ inches. From ear to ear, over the forehead, 19 inches. Round the head, by the chin and vertex, 31 inches. Thirty-four gills (8½ pints) of water were contained within the head. When
the

the water had all flowed out, the cranium resembled a large case thick lined; the cortical and medullary portions of the brain were squeezed together, and formed what seemed the lining of the cavity, and was about one-fourth of an inch in thickness all round. A few shreds appeared extending through it, in the direction of front and occiput, being apparently the remains of the partition between the ventricles. The rest of the cerebrum was absorbed; the cerebellum was seen lying at the bottom, healthy and entire. Notwithstanding the early existence of this disease, and its rapid progress, it appears that this child's faculties expanded faster than is usual in children of his age: his vision was perfect; his hearing acute; his memory quick and tenacious; and his correctness in his childish affairs very remarkable. His senses were perfect till within an hour of his death.—*Edin. Journ.*

Our continental correspondents have sent us a number of articles, from which we have selected the most interesting. The long paper on Cartilaginous and Osseous Bodies found in the Joints is only a very imperfect transcript of Mr. Hunter's paper in the Transactions of a Society for the Improvement of Medical and Chirurgical Knowledge, and also of Mr. Brodie's paper on the same subject in the Medico-Chirurgical Transactions. On the subject of curing syphilis without mercury, and also without ascertaining the disease, our communications are innumerable. We have selected a few as specimens of the rest.

Dr. KARPE, at Vienna, has, on numerous occasions, experienced the efficacy of the diluted Acidum Sulphuricum, in the proportion of six drachms to two and a half of water, applied as a lotion in cases of typhus. He has observed, that, by this lotion, the stadium irritationis was not unfrequently quite suppressed; but that even applied at a later period it not only greatly alleviated the accidents of the typhus, but also accelerated the re-convalescence: many German physicians have confirmed this observation.

Prof. MEYER and REICH, at Berlin, now apply, as a principal remedy in cases of diarrhoea, so frequent in children, ℞j. acid. mur. dilut. in ℥iij. of any kind of syrup, to be taken a teaspoonful every one and half or two hours.

Prof. MEYER affirms his having found great benefit in the fatal tympanites, particularly in nervous complaints, from a composition of alum, 8 or 10 grains, and 8 grains of the pulvis aromaticus, to be taken every two hours, combined with glysters of Acidum salis.

Dr. FRANK has revived the practice of Urtication in those cases in which the power of a limb has ceased, from long disuse. He mentions the case of a soldier whose lower extremities were struck with the palsy, in all probability contracted by sleeping on the wet ground. I chose (said he) particularly the large stinging nettle for that purpose, of which I caused a considerable bundle to be tied together, and to be applied on the lower parts, upwards

and downwards, as long as the patient could bear it, to which the use of warm baths is to be added. But in cases of palsy, the consequence of an apoplexy or hemiplegy, I could never procure any effect by urtication.

We print the two following articles to show how slow the progress of every art remains, till some luminary appears, to direct us to the proper road. How much soever we may smile at our neighbours, we ought to recollect that before Mr. Hunter's time we reasoned like them, and are only now beginning to reform:—

For some time past the Veterinary Institute at Vienna has made use of mercurial ointments in such diseases of animals as originate from the corruption of the lymphatic system. It has been discovered, by a lucky chance, that the use of the milk of such cows as had received the strongest unction, is an excellent remedy in venereal complaints. Repeated trials have confirmed the efficacy of this remedy in the most inveterate syphilitic complaints, although, after various decompositions, even of greater quantities of the milk, not the smallest visible particle of mercury could be discovered, notwithstanding large balls were found in the vessels of the animals to whom it had been given.

Dr. ROSENBAUM found the gargling with the fresh juice of the herb chelidonium very beneficial in venereal ulcers of the throat.

A Case of Demonomania, detailed by M. Bertholet, Médecin des Armees.—The subject was a female, and the occasion of the disease was a sermon delivered by a most violent fanatic. Bertholet saw this woman on the fourth day of the disease. He found her in the highest state of most deplorable mental excitement, nor was it till he assured her that he was thoroughly initiated in the secrets of hell, that she would pay him any attention; but, upon hearing this, she said that violent pain existed in her head. A bath was proposed: it was objected to, because it would increase the flame consuming her; it was, however, permitted afterwards, as it would satisfy him of her real condition, by rendering the fire in her apparent. Extreme cold was applied to the head, by means of snow in a bladder. This was immediately followed by alleviation of symptoms, and its re-application was always attended with temporary good effect. On the fifth day she was exorcised, after the ceremonials of the Catholic church. Snow continued—its use remitted, violent delirium supervened—it was re-applied with benefit; purges were given, and opiates. A violent thunder clap at once operated a cure. The patient became calm, was wretched that she had behaved so ill, and gradually was restored to her usual health.—*Jour. de Phys. Feb. 1815.*

The following Memoir on partial Amputation of the Foot, by L. R. VILLERMÉ, D.M.P. contains an account of Chopart's operation, first published in 1792, which has for its object preserving the

the posterior part of the foot, by amputating at such articulations of the tarsus as circumstances admit of. The operation was followed by a partial re-union, from the first intention, of the two flaps which were formed, to the articulating surfaces of the bone, and complete cicatrization occurred at the end of a month by suppuration of the rest of the wound. Chopart deserves much credit for this operation. A most important part is preserved, by which, both standing and walking, are secured to the subject of incurable ulceration of the other part of the feet, and which, before this improvement, had always been most strikingly impeded by the usual operation, viz. amputation of the lower leg.

Chopart tells us so successful is this treatment, that the patient stands in no need of mechanical assistance afterwards, but can walk perfectly well without it. This, however, was not supported by the experience of Villermé: he says he was led to believe, at the first examination, if we could add to the remaining extremity of the foot another mechanical extremity, thus augmenting the base of support which has been diminished by the operation, we shall effect the cure of the disease, and supply the loss from amputation; for we thus replace in some measure, or form anew, the portion of the dismembered extremity. This artificial extremity will have all the perfection of which it is susceptible, if maintained in the direction of the foot by a strong interior spring.

It will be impossible in this article more than to mention the advantages Mr. Villermé urges in favour of the operation he recommends, or to point out in what it differs from that of Chopart. The author is astonished that the success of Chopart should not have led to new trials. It was not till 1812, that notice was taken of it by M. Richerand, in the *Nosographie Chirurgicale*, and in the *Memoirs of Military Surgery* by Mr. Larrey. The advantages proposed by Villermé appear to depend more particularly, 1st, on the remaining length of that portion of the foot which is anterior to its articulation with the leg; and on its size, which both better insure walking, and prevent falling forward. 2d, On the facility we shall have in supplying an artificial extremity to the foot, equal to the whole extent of the base of support, and the whole length of the column which forms the inferior limb.—*Ibid.*

Dr. UWINS is appointed Physician to the City Dispensary, vacated by Dr. Walker.

Dr. HENNING, of the Hot-Wells, Bristol, author of an Inquiry into the Pathology of Scrofula, is preparing for the press a work on Pulmonary Consumption, which will be ready for publication early in the spring.

Dr. ADAMS will commence his Course of Lectures on the Institutes and Practice of Medicine, on Tuesday, January 13th, at ten o'clock precisely, at his house in Hatton Garden.—For further particulars see the cover.

Theatre of Anatomy.—The Winter Course of Lectures on Anatomy, Physiology, Pathology, and Surgery, by Mr. JOHN TAUNTON, F.A.S. Member of the Royal College of Surgeons of London, Surgeon to the City and Finsbury Dispensaries, City of London Truss Society, &c. will commence on Saturday, January 27th, 1816, at eight o'clock in the evening precisely, and be continued every Tuesday, Thursday, and Saturday, at the same hour.

The Spring Courses of Lectures will commence at St. Bartholomew's Hospital on Saturday, January 20th.—On the Theory and Practice of Medicine, by Dr. HUE. On Anatomy and Physiology, by Mr. ABERNETHY. On the Theory and Practice of Surgery, by Mr. ABERNETHY. On Chemistry and Materia Medica, by Dr. HUE. On Midwifery, by Dr. GOOCH. Anatomical Demonstrations, by Mr. STANLEY.

Russell Institution.—Mr. SINGER will commence his Lectures on Electricity, Galvanism, and Electro-Chemistry, about the end of January.

Dr. CLUTTERBUCK will begin his Spring Course of Lectures on the Theory and Practice of Physic, Materia Medica, and Chemistry, about the middle of January, at ten o'clock in the morning, at his house, No. 1, in the Crescent, New Bridge-street.

Mr. CLARKE will commence his next Course of Lectures on Midwifery, and the Diseases of Women and Children, on Wednesday, January 24th. The Lectures are read every morning, from a quarter past ten to a quarter past eleven, for the convenience of students attending the hospitals.

Dr. SQUIRE will, on Tuesday, January 16th, begin a Course of Lectures on the Principles and Practice of Midwifery, including the Diseases of Women and Children.

Mr. CHARLES BELL will re-commence his Surgical Lectures on Tuesday evening, the 23d instant, at seven o'clock. He will give a Clinical Lecture on the cases in the Hospital every week during the course.

LONDON PRICES OF DRUGS.—DECEMBER 22, 1815.

	£.	s.	d.	£.	s.	d.	per		£.	s.	d.	£.	s.	d.	per
Aloes Barbadoes, from	17	0	0	to	18	0	0 C.	Gum Galbanum....	24	0	0	to	26	0	0 C.
— Cape	4	0	0	..	4	5	0 —	— Guaiacum, from	0	3	6	..	0	5	0 lb.
— Succotrina ..	23	0	0	..	0	0	0 —	— Mastic	0	4	9	..	0	5	0 —
— Epatica or E.I.	9	10	0	..	0	0	0 —	— Myrrh	16	16	0	..	20	0	0 C.
Angelica Root	none.							— Olibanum	8	0	0	..	11	0	0 —
Alkanet Root.....	6	10	0	..	7	0	0 —	— Oppopanax ..	80	0	0	..	0	0	0 —
Antimony Crude ..	2	10	0	..	2	14	0 —	— Sandrac	8	0	0	..	8	5	0 —
Arrow Root, fine ..	0	2	0	..	0	2	3 lb.	— Senega	6	15	0	..	7	0	0 —
— ordinary	0	0	9	..	0	1	0 —	— Tragacanth ..	23	10	0	..	25	0	0 —
Arsenic, Red	4	4	0	..	4	10	0 C.	Jalap	0	5	0	..	0	5	6 lb.
— White	2	16	0	..	0	0	0 —	Ipecacuanha	0	12	0	..	0	0	0 —
Balsam Capivi	0	4	6	..	0	4	9 lb.	Isinglass Book.....	0	9	0	..	0	0	0 —
— Peru	0	18	0	..	1	1	0 —	— Leaf.....	0	8	9	..	0	0	0 —
— Tolu	0	12	6	..	0	13	0 —	— Long Staple	0	9	6	..	0	10	0 —
Bark Jesuits', pale ord.	0	1	3	..	0	0	0 —	— Short Staple	0	8	6	..	0	0	0 —
— middling	0	2	1	..	0	0	0 —	Manna Flakey	0	5	2	..	0	5	4 —
— fine ..	3	0	0	..	0	0	0 —	— Sicily in Sorts	0	3	6	..	0	0	0 —
— Crown	0	3	8	..	0	4	6 —	Musk China	0	18	0	..	1	0	0 oz.
— Yellow flats ..	0	1	2	..	0	1	4 —	Nux Vomica	2	0	0	..	2	2	0 C.
— Quills..	0	2	0	..	0	2	3 —	Oil of Vitriol.....	0	0	3	¼	0	0	4 lb.
— Red Quills..	0	6	6	..	0	8	9 —	Opium, East-India..	none		0	..	0	0	0 —
Borax, refined E.I..	6	0	0	..	6	10	0 —	— Turkey	1	4	0	..	1	4	6 —
— English	0	2	0	..	0	2	3 lb.	Pink Root	2	1	0	..	0	0	0 —
— unrefined or Finc.	5	5	0	..	0	0	0 C.	Quicksilver	0	4	6	..	0	0	0 —
Camphire, refined ..	0	5	3	..	0	0	0 lb.	Rhubarb, East-India	0	6	6	..	0	12	0 —
— unrefined	14	10	0	..	15	0	0 C.	— Turkey.....	0	18	0	..	0	0	0 —
Cantharides	0	8	6	..	9	0	0 lb.	Saffron, Spanish....	3	10	0	..	3	14	0 —
Cardemoms (best)..	0	5	3	..	0	5	6 —	— French	2	4	0	..	2	10	0 —
Cassia Buds.....	20	10	0	..	23	0	0 C.	Sago	2	16	0	..	4	0	0 C.
— Fistula, W.I.	5	0	0	..	0	0	0 —	Sal. Ammoniac	10	10	0	..	11	0	0 —
— Ligna	25	0	0	..	26	0	0 —	Salop	24	0	0	..	25	0	0 —
Castorum American	1	8	0	..	2	2	0 lb.	Sarsaparilla.....	0	2	3	..	0	4	6 lb.
— Russia ..	11	11	0	..	0	0	0 —	Sassafras	1	10	0	..	1	15	0 T.
Castor Oil, per bottle } 1½ lb.....	0	3	4	..	0	3	9 bo	Scammony, Aleppo	1	14	0	..	1	16	0 lb.
Coculus Indicus	3	3	0	..	3	10	0 C.	— Smyrna ..	0	18	0	..	0	0	0 —
Colocynth Turkey..	none.							Senna, Alexandria ..	0	3	9	..	0	0	0 —
Columbo Root	3	0	0	..	3	5	0 C.	Seeds, Anni Alicant	7	5	0	..	8	0	0 C.
Cream of Tartar....	4	15	0	..	5	0	0 —	— Cummin.....	4	10	0	..	4	16	0 —
Gallangal East-India	4	10	0	..	4	15	0 C.	— Fenugreek....	1	15	0	..	0	0	0 —
Gentian Root	4	15	0	..	4	17	6 —	Shellack	5	0	0	..	7	10	0 —
Ginjang	4	0	0	..	4	3	0 lb.	Sticklack.....	3	10	0	..	7	0	0 —
Grains of Guinea....	5	0	0	..	5	10	0 C.	Snake Root.....	0	3	9	..	0	4	0 lb.
Gum Amfno. Drop..	0	0	0	..	0	0	0 —	Soap, Castile or Spanish	9	0	0	..	10	0	0 C.
— Lump	10	0	0	..	12	12	0 —	Spermaceti, refined..	0	2	2	..	0	0	0 lb.
— Animi	10	10	0	..	0	0	0 —	Tamarinds, West-India	5	5	0	..	5	15	0 C.
— Arabic, E. I. ..	2	0	0	..	4	0	0 —	Tapioca, Lisbon....	0	0	9	..	0	1	0 lb.
— Turkey, Fine ..	9	10	0	..	9	15	0 —	Turmeric, Bengal ..	4	10	0	..	4	15	0 C.
— Barbary	5	5	0	..	0	0	0 —	— China.....	6	10	0	..	7	0	0 —
— Assafœtida....	10	0	0	..	15	0	0 —	— West-India	3	10	0	..	4	4	0 —
— Benjamin	15	0	0	..	60	0	0 —	Verdigris, Wet	0	3	6	..	0	0	0 lb.
— Gambogium ..	24	10	0	..	25	0	0 —	— Dry	0	5	8	..	0	5	10 —
— Copal, scraped	0	5	9	..	0	6	0 lb.	— Crystallized	0	8	9	..	0	9	6 —
								Vitriol, Foreign white	2	10	0	..	0	0	0 C.

Price of Vials per Gross.—8 oz. 70s.—6 oz. 58s.—4 oz. 47s.—3 oz. 43s.—2 oz. 36s.—1 oz. 30s.—
— ½ oz. 24s.

Lisbon Leeches, 30s. per hundred.—True French ditto, 55s.
Essential Salt of Lemons, 4s. 6d. per dozen.

METEOROLOGICAL

METEOROLOGICAL REGISTER.

From November the 25th, to December the 25th, 1815.

Kept by C. BLUNT, Philosophical Instrument Maker, No. 38, Tavistock-Street, Covent-Garden.

Moon.	Day.	Wind.	Barometrical Pressure.			Temperature.			
			Max.	Min.	Mean.	Max.	Min.	Mean.	
	26	N	30.20	30.20	30.20	50	32	40.25	Fair
	27	N	30.19	30.01	30.127	48	32	39.	Fair
	28	N	29.97	29.94	29.947	49	31	40.	Fair
	29	N	30.07	30.02	30.022	50	33	39.5	Rain
☉	30	NE	29.84	29.72	29.797	51	35	40.75	Fair
	1	NE	29.95	29.79	29.835	49	33	39.5	Fair
	2	NW	30.11	30.07	30.092	51	34	39.5	Fair
	3	W	30.	30.	30.	50	34	38.5	Fair
	4	W	29.79	29.73	29.755	49	35	38.	Fair
	5	SW	29.91	29.41	29.665	50	35	38.75	Fair
	6	SW	29.42	29.38	29.405	50	34	39.75	Rain
	7	W	29.93	29.77	29.867	50	33	40.	Rain
☽	8	W	29.97	29.96	29.965	48	31	37.75	Rain
	9	W	30.16	30.02	30.072	47	30	37.25	Rain
	10	NW	30.	30.	30.	46	28	36.25	Rain
	11	N	30.31	30.30	30.02	47	26	35.5	Fair
	12	N	30.36	30.22	30.302	49	27	37.	Snow
	13	N	30.20	30.13	30.157	51	25	35.25	Snow
	14	N	30.24	30.16	30.197	51	28	35.75	Rain
	15	NW	29.72	29.58	29.647	50	29	36.25	Rain
☉	16	W	29.12	28.93	29.047	49	30	37.	Rain
	17	SW	29.14	29.14	29.14	48	33	38.25	Fair
	18	W	29.42	29.35	29.385	49	28	37.25	Fair
	19	NW	29.56	29.50	29.527	48	30	36.25	Snow
	20	WNW	29.14	29.01	29.062	49	29	38.5	Rain
	21	NW	29.49	29.29	29.407	50	26	36.	Fair
	22	NW	29.67	29.58	29.622	50	28	38.	Fair
☽	23	W	29.69	29.49	29.60	52	28	36.5	Fair
	24	W	29.52	29.52	29.52	51	28	36.75	Fair
	25	W	29.52	29.52	29.52	48	26	35.	Fair

RESULTS.

Mean barometrical pressure of the month 29.848 | Mean temperature of the month 37.79625 deg.
 Maximum 30.36, wind at N | Maximum 52, wind at W
 Minimum 28.93, wind at W | Minimum 25, wind at N

Scale exhibiting the prevailing Winds during the Month.

N NE E SE S SW W NW
 8 2 0 0 0 3 11 6

	Mean barometrical pressure.	Mean temperature.
From the last quarter on the 23d Nov. to the new moon on the 30th.	30.164	38.214
new moon on the 30th of Nov. to the first quarter on the 8th of Dec.	29.802	29.317
first quarter on the 8th, to the full moon on the 16th	30.045	36.375
full moon on the 16th, to the last quarter on the 23rd	29.312	37.321

MONTHLY

REPORT OF DISEASES.

THE autumnal division of the year, to use the language of Sydenham, abounds quite as much with inflammatory complaints as the vernal; and this disposition to inflammation seems to increase from year to year. The more common complaints of this month are the exanthemata, particularly small-pox and scarlatina. Measles has not been so prevalent. Small-pox has been more destructive, compared with its prevalence, than at any period of the reporter's recollection, and more rife than for these last ten years. This cannot be the effect of inoculation, which no one, we presume, will have the hardiness to practise in the metropolis, since the decision at the Court of King's Bench. Again we must regret the inattention to vaccination.

All the fevers have been attended with strong local action, chiefly about the thorax, assuming the form of those violent pleurisies which Sydenham considered as confined to the spring. In one subject, not more than thirteen years old, but very well fed, it was found necessary, on the first day, to take eight ounces of blood, and exhibit strong cathartics. On the following, sixteen ounces were taken at two bleedings, yet, on the fourth day, carditis was evinced by every symptom of the pulse, the seat of the pain, the respiration, and the almost imperceptible pulsation of the heart. Sixteen ounces of blood were taken at a single bleeding, at the close of which operation the patient was slightly convulsed. From that time, however, the symptoms abated, and on the third day after it the patient became convalescent.

A child, three years old, in the family of a working artizan, not in an airy part of the town, was seized with croup, and effusion seemed to take place in the brain. He was leeches before the Reporter saw him; but the symptoms were so violent, that it was thought necessary immediately to take seven ounces of blood by cupping glasses, at the same time exhibiting calomel in very large and repeated doses. In the evening the breathing was so much relieved as to give every hope of recovery, but the faculties remained dull for four days more, during which the calomel was continued in smaller doses. At the end of that time he recovered his senses, and his speech imperfectly. He is now convalescent.

The practice of bandaging in rheumatism gains ground. We hope it will not, like other useful remedies, be so hacknied as to be brought into disgrace for not proving universally successful.

Catarrhs are somewhat abating in frequency and severity; but the winter asthmas are beginning to interrupt the conviviality of the season.

MONTHLY CATALOGUE OF MEDICAL BOOKS.

A CONSPECTUS of the Pharmacopœias of the London, Edinburgh, and Dublin Colleges of Physicians; being a Practical Compendium of Materia Medica and Pharmacy. By Anthony T. Thomson, F.L.S. &c. &c. Second edition, corrected and greatly improved. 18mo.—Underwood.

A System of Human Anatomy. By John Gordon, M.F.R.S.E. &c. &c. Vol. I. 8vo.—Cadell and Davies.

First Lines of the Practice of Physic, by William Cullen, M.D. including the Definitions of the Nosology; with an Appendix chiefly selected from recent Authors who have contributed to the improvement of Medicine. By Peter Reid, M.D. A new edition in 2 vols. 8vo.—Longman and Co.

An Account of Two successful Operations for restoring a Nose from the Integuments of the Forehead, in the Cases of Officers of his Majesty's Army. By J. C. Carpue. With Engravings, by Turner, illustrating the different Stages of the Cure.

A Catalogue of a Modern Collection of Books in Anatomy, Medicine, Surgery, Chemistry, Botany, Veterinary Art, &c. containing the most approved Authors; to which is added, a complete List of the Lectures delivered in London. By J. Callow, Medical Bookseller, No. 10, Crown-court, Princes'-street, Soho.

NOTICES TO CORRESPONDENTS.

"A SUBSCRIBER" cannot expect us to enter into the complaints of an apprentice. If he is bound to a freeman of London, he must apply to the Chamberlain; if by private indentures, to a justice of the peace.

Want of room obliges us to postpone a Report we have received from Small-Pox Hospital, and also the yearly Bill of Mortality, with remarks.

The papers we have received from the West require our very serious consideration. We are to acknowledge a paper from Dr. ADAMS, J. BARLOW, Esq., J. ROBERTSON, Esq., and several others, which will appear in our next.

THE LONDON
Medical and Physical Journal.

2 OF VOL. XXXV.] FEBRUARY, 1816. [NO. 204.

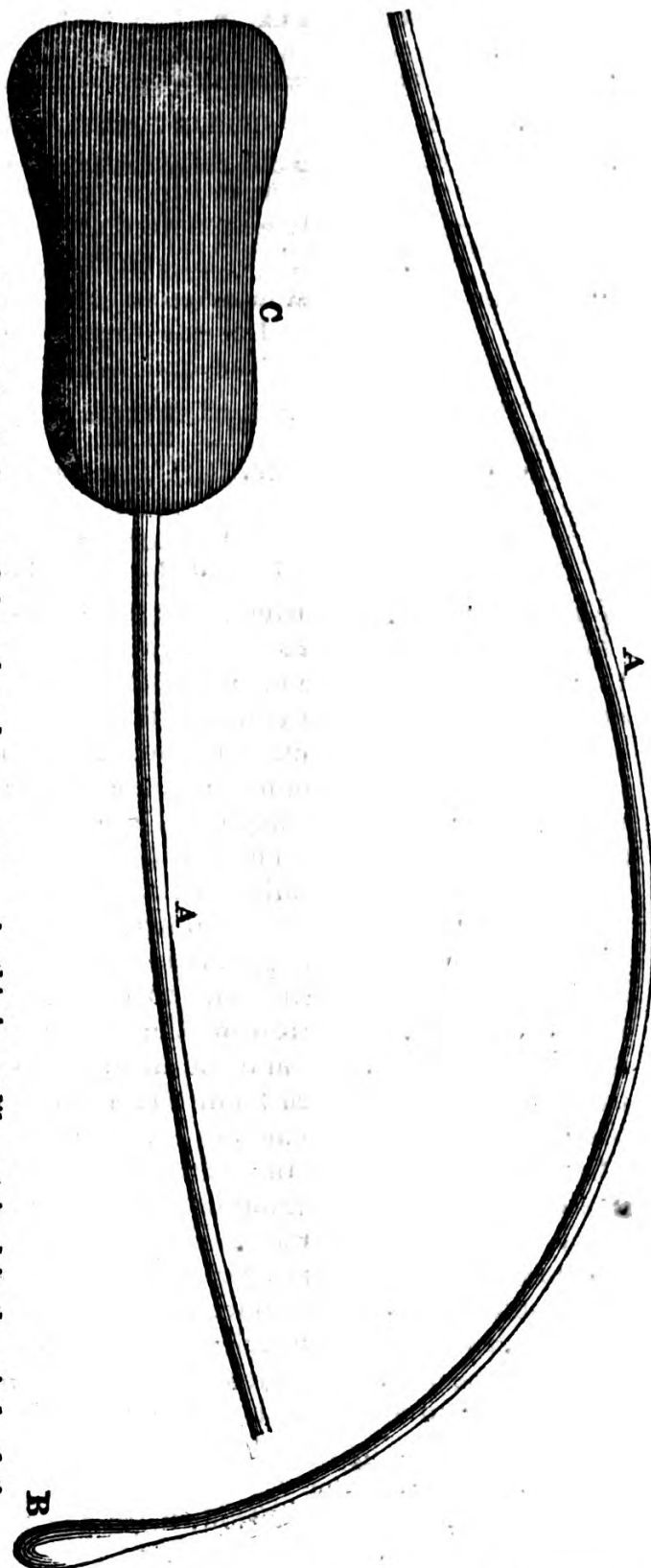
“For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work to which the Faculty in EUROPE and AMERICA were under deeper obligations than to the Medical and Physical Journal of London, now forming a long, but an invaluable, series.”—RUSH.

For the London Medical and Physical Journal.

SKETCH of an improved SOUND for detecting the STONE in the BLADDER; by JAMES BARLOW, Esq.

WHOEVER attentively considers the delicate and complex structure of the urinary organs, and the functions they are destined to perform, will readily admit that their consequent exposure to disease and pain demands from the surgeon the most prompt and attentive consideration. On these grounds, it is presumed the experienced reader will pardon me for thus intruding on the public in attempting to obviate certain difficulties occurring in the ordinary mode of sounding the bladder, which, I presume, others must have shared with me.

The sound, represented in the annexed Plate, I have of late been so frequently in the habit of using, that I can with confidence assert it possesses important advantages in practice, from being moved in the canal of the urethra and cavity of the bladder with greater facility to the surgeon and safety to the patient than the sounds constructed in the ordinary way. Cases frequently occur in which the prostate gland is morbidly enlarged, and where inflammation has spread over the internal membrane of the bladder, and along the posterior portion of the urethra, producing spasm and irritation. The membrane of the urethra sometimes becomes inflamed and dry, which also prevents the free motion of the sound. When these are complicated with stone in the bladder, an additional and aggravated cause is excited for the frequent expulsion of the urine. This reiterated excitability of the functions of the urinary organs, whether dependant on voluntary or involuntary action, manifests a degree of sympathizing agency over these parts, and much increases the difficulty of introducing either the sound or catheter.



The proposed sound is of the usual length and curvature. As this is readily retained in the mind of the reader, we have taken the liberty of dividing the length of the figure, for the convenience of binding. In the diameter, bulb, and handle, we have instructed the engraver to preserve a *fac-simile* of the drawing.

Explanation of the Plate.

- A**, a sound of the common length for an adult, with all that portion of the instrument, from its anterior part of the bulb or point to the handle, equally reduced to about one half the usual thickness or diameter, which diminished form renders it less liable to be acted upon by the urethra.
- B**, the apex or bulb of the sound, of the usual proportioned size.
- C**, the handle of the sound.

To accomplish the introduction of the sound, and search the cavity of the bladder with becoming dexterity, the surgeon

geon should be furnished with a variety of instruments of different degrees of curvature, length, and diameter, proportioned to the age and bulk of the patient.

As no two cases are in every respect exactly similar, and as almost every writer on surgery has described the anatomy of the parts subservient to lithotomy, it may be presumed that the reader is fully acquainted therewith.

It will be granted that the management of the catheter requires nearly the same manœuvre to conduct it into the bladder as the sound. Let me then intreat the attention of the young surgeon to the concluding paragraph, so well expressed by an author of distinguished celebrity, when closing his directions on the mode of introducing this instrument into the bladder. "The catheter (says he) in the hands of a surgeon, like the pencil in the hand of a painter, requires frequent use, and much practice, to be managed with facility and success. Rules may be laid down for the forming a rough outline; but those more delicate movements, which, in many instances, are necessary to insure success, can no more be described, than a painter can describe those finer touches of his pencil which are necessary in the perfecting of some finished performance."

When a common-formed sound has been introduced into the bladder, for the purpose of exploring the different parts of that viscus to find the stone, I have frequently perceived the instrument so firmly embraced by the urethra, that it was scarcely moveable without the whole of that canal and body of the penis partaking of the motion exercised by the hand in attempting to complete this stage of the operation. Hence follow the difficulty and obscurity of such blind research, and the uncertainty of identifying the tremors communicated from the stone along the sound by the stroke of the instrument. These perverse circumstances first suggested to me the necessity of adopting a sound differently constructed from those in general use.

I am also disposed to believe that the failure of detecting the stone may not unfrequently be attributed to an irritable and spasmodic affection (independent on organic disease) of the muscles* of the perinæum and bladder opposing the movement of the instrument:—that, when its point is conducted to the membranous part of the urethra,

* Is it not an undue degree of action of the two muscles surrounding this portion of the urethra, as described by Mr. Wilson, which chiefly tends to impede the introduction of any instrument into the bladder? See *Medico-Chirurgical Transactions*, vol. i.

ejaculator seminis, and prostate gland, it excites the contiguous muscles of the lower part of the pelvis and bladder into action, and thus impedes the complete introduction of the instrument. In this uncertain and embarrassed posture of affairs, it is manifest that any movement of the sound, however judicious, must be fruitlessly employed, unless the stone be of considerable size, or seated near the neck of the bladder.*

The pain and spasm so frequently excited on the living body by the introduction of any instrument into the bladder when tortured with calculi, must have been noticed by most practitioners who are versed in this branch of surgery; and it is a fact which should never be overlooked by the junior surgeon, that a similar attempt to pass either the sound or catheter on the dead subject, is an operation of comparatively minor difficulty, when the muscles subservient to these parts have lost their vital energy.

Before dismissing this subject, I wish to mention that I have also been in the habit of occasionally sounding the urethra, to ascertain the place and extent of strictures, with this instrument, and sometimes using one made nearly strait; either of which excites less irritation, and is also passed along the canal of the urethra with greater facility than the bougie.

Having thus slightly marked out a few leading impediments in the mode of sounding the bladder, (which are scarcely noticed by surgical writers, when treating on the stone,) without entering into a laboured detail of every step and stage relative to the subject, I am induced to infer that the practical lithotomist will give me credit for having suggested an instrument which, when used with skill and adroitness, will surmount most of the incidental obstacles connected with the operation in question.

Blackburn, Lancashire;

Dec. 24, 1815.

For the London Medical and Physical Journal.

On Midwives and Accoucheurs; by JOSEPH ADAMS, M.D.

I HAVE been much interested in the controversy of some of your learned correspondents concerning the obstetric art, and shall feel obliged by your admitting a few loose

* In the course of an extensive practice, I have many times been able to detect the stone in the bladder, when other surgeons have repeatedly and fruitlessly employed all their efforts.

thoughts on the subject, if not inconsistent with the plan of your Journal.

I would first remark, not only that *accoucheurs* are of recent origin, but that no language with which I am acquainted has a primitive word for a male practitioner in that art. The Hebrew midwives were all female, as far as we may judge by the sacred text. In Greek, we find Hippocrates feminizing an old fashioned word applied to a healer, and even to a botcher; and other writers using a term as often applied to the nurse. The noun *obstetrix*, in Latin, has, I believe, no masculine. In modern languages, the Germans have two expressions, both of which seem to refer to labour-pains or groanings, and both are feminine. The Italians have dropped the old Latin term, and use *commere*, which is indifferently applied to a nurse or gossip attending at those periods. The Portuguese and Spaniards, who, next to the Italians, retain most of the original Latin, have *commadre*, used in the same senses, and also as a god-mother. They have, indeed, the term *medico*, or *chirurgion-parteiro*, but these are evidently of modern invention, from *partire*, or the Latin *partum* supine of *pareo*.

The proper French term is *sage femme*, so called, not only on account of her supposed knowledge, but because she is empowered, in cases of necessity, to baptize. For this purpose, she does not always wait for the birth of the child; but if the labour is lingering, and on that account likely to prove fatal to the infant, it is, in many parts of the continent, baptized by dipping the midwives finger into water, which is brought into contact with any part of the child: the woman then pronounces *In nomine patris*, &c. concluding by proclaiming "The child is baptized." Of late years the French have adopted the word *accoucheur*, or *chirurgien accoucheur*, to signify the office when conducted by men.

I am not sufficiently acquainted with the Anglo-Saxon to ascertain whether *gossip* was among them the only term for those who exercised that office, and afterwards midwife added, to distinguish that lady from the other attendants. The latter term, however, seems plainly to show to which sex it was confined; and, if I am right, can there be a greater absurdity than to talk of a *man-midwife*? But our term *lying-in*, or, according to modern delicacy, *confinement*, is ill suited to form into a substantive: hence we have been under the necessity of using the French word *accoucheur*.

From what has been said, I conceive, it will not be questioned that the introduction of *accoucheurs* is of modern date, probably first begun by the French, who, it must be

be admitted, were the masters of all Europe in the early practical improvement of surgery. It is, however, certain that physicians and (as soon as surgery was reduced to an art) surgeons attended to all the circumstances of gestation and parturition, and that in many difficult cases they were consulted. The only remaining inquiry, therefore, is, whether the modern practice of applying in all cases to men is an improvement? for to say that they are always necessary would be an absurdity.

In pursuing such a question, our first business is to ascertain the duties of the office. These are, an accurate knowledge of the parts, of the progress of gestation and parturition, of the diseases arising from the first, and the interruption to the last. These, from whatever causes, would naturally lead to the proper mode of relief, with or without instruments. This comprehends likewise all the incidents by which we may distinguish genuine from preternatural gestation, and also the various and very complicated diseases attending each.

If women are not as well informed on these subjects as men, it is, probably, only because they are not so well instructed. Interdicted from using instruments, and always taught to call the assistance of the other sex under every difficulty, their chief attention is to the natural progress of the labour, and the signs by which they may judge of any impediment. I will, therefore, for argument sake, suppose them in all respects as well instructed as the men, and then inquire whether such instructions are all that is necessary to constitute a complete accoucheur?

Surely every reader must be aware of two grand qualifications which, unless we could alter the race, must for ever remain deficient in the female. I mean courage and corporeal strength. That there are females who possess both, cannot be questioned; but the proportional number is few, and those few are not always such as we should fix on to attend their own sex during the most interesting period of their existence. But without courage, how can we expect the early application of those means which, on some occasions, can only be delayed at the certain loss of two lives. Corporeal strength is more necessary in this than in any other branch of our laborious profession. Labours more commonly occur at night than during the day; and, if they do not occur at the former period, still the gloom and apprehension of the patient and her attendants are always increased, so as to render nocturnal calls very frequent. A woman cannot always answer such calls without some protection,

tection, which adds much to the difficulty and expence of her attendance; and it is only during a comparatively short period of her life that she can be equal to the fatigues attending her vocations. Another very serious inconvenience has arisen from this, which I am constrained to mention without any general imputation on the sex. After or under considerable fatigue, she will always find some of her sex at hand to offer the ready but dangerous relief of the dram-bottle. Whatever may be her inclinations, not to say resolutions, it will be scarcely possible to resist at all times, and it is unnecessary to add how gradually this habit steals on both sexes with advancing years. How much more must it be, then, where there is the addition of continual sollicitation, and often a sufficient apology for complying. That such was the case with midwives, and one of the causes of their discontinuance, is notorious. Nor can it be entirely imputed to the effects of a northern climate, and the facility with which ardent spirits are procured, since the invention of distillation from malt. In Rome, and probably in Athens, long before even the distillation of brandy was known, midwives were accused of this habit. One familiar instance occurs to me in Terrence. The scene of his *Andria* is well known to be in Athens; but, supposing that he has introduced Roman customs, the question will not be materially altered. In this play an infant is born, previously to which we have the description of the *obstetrix* and nurse. In the fourth scene of the first act, the servant addresses the nurse, telling her that she heard her orders to procure Lesbia the midwife. She then adds that "Lesbia is such a tippler, and so inconsiderate, as not to be trusted in a first labour. However," says she, "I'll fetch her." As she is going she adds aside to the audience—"Importunitatem spectate auniculæ, quia *compotrix* ejus est—see how mal-apropos the old creature is, merely because they are pot-companions."

Thus it appears to me that for the most part there seems no remedy against the additional fatigue which this branch of the profession has brought on the country practitioners. At the same time, I conceive, it would be always to their advantage to select, if they can find such, the most judicious among those women who are in the habit of assisting their poor neighbours, and give them such general instructions, in the form of aphorisms, as may enable them to distinguish preternatural presentations at an early period. By these means, the surgeon might frequently be relieved for several hours, and even allowed to sleep till morning, without the loss of his fee in such families as are worth attending. Even the
good

good management of such a female would reflect credit on her instructor; and the general progress of gossip being often directed by these women, would run very much in favour of the man who treated them like reasonable beings.

For the London Medical and Physical Journal.

Remarks on Hydrencephalus; by G. D. YEATS, M.D.

THE Editors of the Eclectic Review* having, with much gentlemanly candour and critical acumen, noticed my pamphlet on Water in the Brain, and having stated what they conceive to be my attachment to some particular doctrine, I am desirous of making a few remarks, in consequence of the distinctive divisions they have drawn between these doctrines, and likewise on account of my supposed too near approach to the *verba magistri*. The objections, too, which have been urged from so very respectable a quarter, and with such evident zeal in the cause of science, cannot pass unheeded; although they are, in some of the observations, so qualified as to approach near to the opinions I have advanced, particularly on the subject of hydrencephalus.

The doctrines which have, at different times, prevailed in the schools of physic, have, for the most part, taken their origin from the labours of some industrious individual, who, by the force of native talents, aided by the facilities of education and persevering investigation, by the improvements of science, and the partial discoveries of his predecessors, acquires a tone of authority to his opinions, and of sanction to his system. The preceding doctrines are thus gradually disregarded, and become ultimately neglected, from the clearer light in which the subject is viewed by the recent investigations and improvements, and from the additional insight which is given into some of the recesses of science, hitherto not sufficiently explored; and the new system is erected upon what is considered at the time a firm foundation. Thus it was that the doctrines of the Galenic school disappeared before the flood of light which the discoveries of Hervey poured upon physiology. The doctrines of Boerhaave, derived from the humeral pathology, were, in like manner, made to yield to the more philosophical and consistent reasoning of Hoffman, founded upon the more solid basis of anatomical enquiry; and it is not a little re-

* Eclectic Review, published Sept. 1, 1815.

markable,

markable, that the doctrines of the Boerhaavian school, in our celebrated northern University, were overturned, about seventy years ago, by the medical students, who had procured the works of Hoffman. The professors at that time had all been the pupils of Boerhaave; but the sanction of age and authority could not shield the humoral pathology from the attacks which were brought against it, by those who were armed with improvements from an increased knowledge of anatomy. The opinions which have since prevailed have been only modified from those of Hoffman, whose works are a rich and inexhaustible mine. The labours of Brown, though evidently the efforts of genius and intellectual endowment, proved abortive, by resolving every thing into debility or tone. Thus the Brunonian disciple had nothing to perform but the simple task of adapting his medicines to the one or the other state, forgetting there is an accompanying movement in the constitution, which imperiously calls for weighty consideration, before you can, with ultimate success, subtract from energetic action, or add to the tone of the system. The unwarrantable extent to which system-makers, or their followers, have carried the tenets upon which they have founded their doctrines, however cautious it ought to make us in receiving implicitly the principles of any justly distinguished physiologist, should not, however, induce us altogether to reject the foundation upon which that system may have been built. Something may be culled from all of practical advantage, if judiciously selected and discriminatedly applied. In this way the *verba magistri*, carefully separated from the works of our experienced predecessors, and properly employed to confirm the judicious observations of our contemporaries, founded upon experimental inquiry, or to refute the eccentric theories to which that experimental inquiry may have given rise, become of essential use. Thus an accumulation of valuable information from others is added to our own stock of knowledge, and much precious time is saved by not investigating that which has already been abundantly confirmed. "I never read any thing," said a celebrated anatomist, now dead, "except the book of Nature, for it is only there you can acquire useful knowledge:"—"then," answered the gentleman, with considerable acuteness, to whom this observation was made, "then you should not write, sir; for, upon the same grounds, nobody should read your writings."

In consequence of some particular circumstances which occurred in the early part of my professional career, I was induced to turn my thoughts more closely to the consideration of water in the brain. I was not satisfied with the ex-

planation of the symptoms I read in books, because it did not appear to me to accord with the phenomena; and I was still less satisfied with the mode of treatment, for the melancholy reason that it was almost uniformly unsuccessful. I then began more accurately to analyse the symptoms with diffident and anxious eagerness, and to be more minute in my inquiries respecting the commencement of the complaint; and it was not long before I perceived that, in by far the majority of cases, symptoms which I then considered singular and contradictory, preceded the attack on the brain. Whilst my mind was agitated with thoughts on this subject, the works of Rush, and, subsequently, those of Hamilton, of Abernethy, and of Cheyne, fell in my way: the perusal of these, with a reference to the labours of Hoffman, of Cheston, and of Kirkland, contributed to confirm my suspicion that hydrencephalus was not always originally a disease of the head, and I accordingly hailed with gladness aid so powerful in assisting me to become emancipated from the received doctrines on the subject. I do not feel attached to systems in physic; they are good to teach the student how to tread in the paths of science, but they should not be trammels to check the ardour of research, or to fetter the excursive flights of the mind. It was thus that the genius of a Hervey and a Sydenham burst asunder the bonds of restrictive law which scholastic discipline had imposed upon medical inquiry; and the mighty mind of a Newton and a Locke swelled beyond the measure of its chains, and took its daring flight into the regions of intellectual immensity.

In publishing my letter to Dr. Wall, I wished to state nothing but those facts which had come within my own knowledge in a practical point of view, and to avail myself of such observations as their publication might call forth from the profession, either to correct or confirm a subject where "shadows, clouds, and darkness rest upon it." The remarks which have been elicited by the publication of this letter, and the approbation which has been bestowed in the criticisms of the *Medical Repository*, the *Edinburgh Medical and Surgical Journal*, and also, I may add, by the ingenious writer in the *Eclectic Review*, have confirmed to me a feeling I entertained that I did not see the facts I have advanced through the prejudiced medium of a biassed mind.*

But, whatever importance I may attach, and it is very considerable, to the idea that hydrencephalus in its origin commences in organs distant from the brain, the *Eclectic*

* *Medical Repository* for April 1815; *Edinburgh Medical and Surgical Journal* for October 1815; and *Eclectic Review* for September 1815.

Reviewer will see, by turning to page 8 of my Letter, that I am very far from denying that hydrencephalus does originate, how often I cannot say, within the cranium. But experience of every sort, personal, colloquial, and from reading, has amply confirmed to me that, unless we treat the disease as connected with, or arising from, gastro-hepatic derangement, we shall be disappointed in our practical expectations. There is no doubt, however, that the distinction of the derangement in the digestive organs is often only the removal of effects produced by morbid action in the brain: still, however, the proper management of the gastro-hepatic derangement is one great step towards a cure, inasmuch as it obviates or mitigates the reaction upon the brain, and thus prevents an increased intensity and complication of disease.

I very much doubt whether the gradual paralytic state, which slowly creeps upon the constitution in some children, first manifesting itself in a hesitating and imperfect movement of the lower limbs in walking, and causing the child to trip at every the slightest eminence in its way, is to be considered as connected with genuine hydrencephalus, although no disease shall be discovered along the spine from examination. There appears to be, in such cases, some injury in the brain, with great suffering and derangement in the digestive functions.

I have witnessed this disease at various periods of life, and within the last year three or four cases of the kind in adults, at different ages, have come within my knowledge, in which the chylopoietic derangement was very great; and none of them were benefitted without such medicines as directly operate upon the gastro-hepatic functions. One is now at Bath, the waters of which, taken internally, have more than once afforded relief. The eldest of them died in an apoplectic fit, after having become completely jaundiced; and he was in a rank of life in which controul is not so easily attainable. Another has been so far recovered from his palsy and an hysterical *deciency* of mind as to be able to resume his situation as Clerk in the Bank, from which he had been obliged to absent himself for above three years; and this amendment has been brought about by such remedies as would more particularly affect the digestive organs. He was at one time completely jaundiced, with much tenderness over the region of the liver.*

* This is the case alluded to in p. 99 of my letter on Water in the Brain. The amendment in the palsy has taken place since the publication of the letter, at which time the case was under management.

Within the last two months, a child, four years of age, the interesting daughter of one of our gallant naval defenders, has been brought to town, in whom, as in the cases just alluded to, a paralytic affection has gradually come on, connected with great derangement of the nervous system, and of the digestive organs. Strabismus; great dilatation of the pupils; head-ach; repeated vomitings; frequent recurrences of epigastric fulness, with unhealthy fæcal discharges; much costiveness; inability of guiding the limbs properly when attempting to walk, and that not without assistance; inability also of standing without support; loss of appetite; and an unsteady, intermitting, quick, and weak pulse; formed the assemblage of symptoms in this case. Although a favourable termination may be considered as very doubtful, yet it affords much satisfaction to know that all the symptoms, save the paralysis, which has, however, been mitigated, have been for some time removed by the gastro-hepatic treatment. Powerful tonics had been formerly repeatedly given without any advantage.

I have mentioned these kinds of palsies, on account of the allusion which the candid writer in the *Eclectic Review* has made to them, as some of the early symptoms which mark the commencement of hydrencephalus. They appear to me not to be connected with that particular morbid action constituting the genuine disease, and sometimes producing effusion into the ventricles of the brain: they mark, however, the good effects to be derived from a proper attention to the healthy action of the digestive organs. The connection, too, between the diseases of the brain and a derangement of the functions of the abdominal viscera, is as conspicuous in the advanced periods of life as in our infant years. In the latter we have hydrencephalus, either rapidly hurrying the little sufferer into a premature grave, or approaching in a lingering form, with a gradually enlarging head: in the former, apoplexy of the sanguineous kind either instantly surprises the patient at the moment of apparent high health and conviviality, or slowly advances upon him in the serous kind with lethargy and carus. The experienced physician knows how much, in both instances of infancy and age, the disease of the brain is connected with an imperfect action in the liver, or in the more immediate digestive organs, or in the intestinal canal. The analogy is striking; the conclusion inevitable, whether we explain it from mechanical or sympathetic causes. The constipated state of the bowels at both periods of life is attended, though not always, in either case, with a morbid affection of the brain. The bulimious appetite which so often exists previous to an attack of genuine

nuine apoplexy, and the continuance of it, in the paralytic state, when the patient survives the stroke, is not a little remarkable, when we recollect the kind of appetite that very frequently exists in hydrecephalus: it is an irregular excitement of the stomach—a craving—something more than appetite, which produces an eagerness to eat without a corresponding gratification from its indulgence; and this indulgence is followed by consequences neither creditable to the physician who permits, nor advantageous to the patient who insists upon it.

I might pursue the analogy still further, did not the limits of a paper in a periodical publication check my progress.

The pathologist who refers the origin of diseases constantly to one particular part, must either have a very limited knowledge of anatomy, or must take a very partial view of the animal economy. Whoever, therefore, believes that we are always to look to the liver for the causes of disorders, or that the stomach is uniformly the *primum mobile* in morbid actions, or that irregular intestinal movements is the nucleus upon which are found the various diseases to which we are subject, will most probably find himself disappointed, in only relieving the symptoms, and in not curing the diseases. Whatever division, therefore, may be made of doctrines, as a general principle, into purgative and hepatic theory, or into theory of the digestive organs, they will form a good distinction in systematic writings, but will not be of much use when the prescriber takes the pen in hand, except he keeps in view the reciprocal effects which a morbid action of one portion of the digestive organs has upon another, and ultimately in this way upon the system at large.

King-street, St. James's-square;

Jan. 1, 1816.

For the London Medical and Physical Journal.

On the present State of Vaccination in Oxford; by RICHARD WALKER, Esq.

IN your Journals of October and November last, you did me the favour of inserting some fresh observations on Vaccination, collected chiefly in the month of May last, at which time the natural small-pox began to make its appearance in Oxford, in some instances where there was good reason to suppose previously that such persons were secured by having passed through vaccination in its most perfect form, as well as in several others who had passed through vaccination in a less satisfactory manner.

From

From that time to the date of the present communication, the natural small-pox, (which had been almost entirely unknown here for several years past, viz. since inoculation has been abandoned, and vaccination almost generally substituted in its stead,) has been more prevalent and general, and fatal indeed, than even before vaccination was introduced and inoculation practised. I believe I am justified in stating that such has been the case in the vicinity of Oxford; the credit of vaccination, which, until this time, had preserved the entire confidence of the superior classes, and amongst the lower classes of people had few dissentients latterly; has now, especially amongst the latter, received such a check, or rather shock, that it will be extremely difficult, if possible, ever to restore its shaken credit amongst them: but even amongst these, it seems to be understood and believed, that future small-pox is rendered milder by previous vaccination; but this is not sufficient for them, and nothing seems now to satisfy them but inoculation, this being known to afford absolute and permanent security.

This failure of security from vaccination, has been confined almost exclusively to the lower order of people; the reason of which is obvious: first, in consequence of its being imperfectly or less carefully performed, and its progress not so duly watched as in the superior classes; and, secondly, because this class of persons are more exposed to its contagion in consequence of their more promiscuous intercourse with the affected, and other aiding circumstances; and, moreover, it is a well-known fact now, that vaccinated persons, although they resist the infection at one time, are yet susceptible of it at another time; hence in no instance whatever is there absolute permanent security.

The appearance of persons strongly marked in the face by the effect of recent small-pox is now, although by no means common, not very strange to us — one now and then presenting themselves, which is a novelty we have long been unaccustomed to.

Having given a faithful account, I trust, of the present state of vaccination, which unfortunately is far from being a favourable one, I would readily, were it in my power, proceed to point out a remedy for this defect.

Were vaccination conducted according to the test of its perfection, and the cautions recommended in my last paper, adhered to, although I am convinced there would not, in all instances, afford absolute security; yet, I am still of opinion, that thus managed, vaccination would ever preserve a sufficient degree of credit, to supersede inoculation.

I have,

I have, however, myself witnessed lately anomalies in vaccination, to which I was formerly a stranger, and which I am apt now to suspect arises from a real deterioration in the virus of cow-pock matter in passing through an almost endless series of the human system; for instance, the pustule which I have described in my last paper as local, appears to be far more common than formerly, and is probably the consequence of a deteriorated or less active state of the fluid used for propagating the affection.

It is no uncommon circumstance now to meet with persons under vaccination, having not only two punctures, but three, and even four; this I have seen myself. In many instances, the vaccinated pustules, notwithstanding this precaution, have passed through their progress in a puny state, and without the least efflorescent inflammation, the *sine qua non*, as I consider it, of the complete progress of the pustule. In one person I have seen four pustules, the effect of four punctures in one arm; these were accompanied with a considerable degree of inflammation, as might be expected, but not the *genueris areola*, and not the slightest indisposition; hence, even here there is no reasonable prospect of security. This reminds me, if I might be allowed to digress thus, of the speech of Macbeth, when the ghost of murdered Banquo at a banquet takes the seat, apparently in *propria persona*, allotted to Macbeth himself, to this purport—"The times have been when one mortal blow would lay a man at rest; but now, with twenty mortal wounds, the business yet remains unfinished." In short, I think now, the subject or merits respecting inoculation and vaccination, considering all circumstances, which I have mentioned before and need not repeat here, may be briefly summed up thus, omitting all minor considerations, viz. that inoculation is the only absolute security against future small-pox;* and that vaccination is not equally certain, even when passed through in the most perfect manner. Secondly, the test or criterion of perfect inoculation is so apparent, viz. the variolous eruption, however slight, (preceded by an evident indisposition,) the *sine qua non*, as I consider it, of absolute security, that no one can overlook it; wherever, in vaccination, the indisposition which has been reckoned the *sine qua non* of perfection in this affection, is confessedly by all practitioners frequently wanting, or so slight as to pass unnoticed. Thirdly, the fluid in

* The circumstance of the natural small-pox following inoculation is a case barely possible to happen, and is so far removed from probability as never to occasion apprehension.

the eruptive pustule (which is not exactly the case in the inoculated part,) whether proceeding from inoculation or natural small-pox, may be relied upon in its serous state, and likewise in its purulent state, for communicating small-pox; but in vaccination in its serous state only.* Fourthly, the fluid of small-pox undergoes no deterioration in passing through the human system, at least, it is always sufficiently active to produce small-pox; and, moreover, there is ever an opportunity of referring to the eruptive pustule, which is, in every respect, precisely of the same properties or activity, whether taken from a person inoculated, or who has received it casually or naturally; whereas, the fluid of cow-pox, there is great reason to suppose, degenerates, becoming by repeated propagation, less active and less certain in its effect; and, moreover, the means of referring occasionally to its original source, the affected cow, is extremely confined. The only circumstance I think worthy of being set against this is, that inoculation is a means of propagating natural small-pox; hence, it may be said, admitting the individual himself is benefited by it, the community at large are sufferers; to this it might be answered, that that which is beneficial to the individual would be equally so to the community at large, viz. the general practice of inoculation at an early age, either before or immediately after dentition is past.

Thus, then, the question rests or hinges; absolute and permanent security from future small-pox is to be obtained from inoculation alone, respecting the perfection or completion of which there is no difficulty in discerning: next to this is vaccination immediately from the cow, beyond which I have good reason to think there is no absolute certainty of producing the cow-pox to the human species in its most energetic or effective state. †

So

* It is a well-established fact, that the fluid of small-pox and of cow-pox are most active in their serous state; hence, it follows, that in vaccination it is then only fit for use; whereas, (as I have had frequent experience of myself,) the fluid of small-pox pustules, though weaker in a purulent state, is still fit for communicating small-pox; moreover, I have good reason to think, that the fluid of small-pox in any advanced purulent state, produces a milder kind of small-pox by inoculation, than when in a serous state.

† I know a young gentleman who was vaccinated immediately from the cow, when vaccination was first introduced; in addition to the part vaccinated going through its progress perfectly at the ordinary period, he became indisposed in as severe and similar a

So long as vaccination upon the present system is pursued, it is advisable in all instances, that a pustule be preserved entire and untouched throughout its progress; if it be robbed of its lymph, whilst in its serous state, it may interrupt or interfere with the complete effect of such pustule; and after this state of the lymph is past, it is universally allowed to be unfit for propagating the affection to another. Hence, a puncture in each arm becomes necessary, if it be required to transfer the affection to others, one for this latter purpose alone, or chiefly so.

In inoculation one puncture, or pustule, is sufficient: first, because it is much more acute than vaccinating fluid; and, secondly, because the virus in inoculation enters the system at an earlier stage than in vaccination,* the symptoms of absorption appearing ordinarily about the seventh or eighth day; but in vaccination, (according to my own observation)

manner as in sickening in consequence of inoculation, and of as nearly as long continuance, but without any subsequent eruption. This corresponds with what occurs to persons who receive cow-pox casually from the cow, as in milking, and, likewise, with little abatement, at first propagating the affection from one human subject to another; but the case is now, the virus having progressively degenerated, obviously different; it is agreed on by all practitioners, that the indisposition is frequently wanting, or so slight as scarcely to be noticed, which corresponds with my own experience, although the part vaccinated, may have made a satisfactory progress; and, moreover, that now we see the vaccinated pustule very commonly pass through its whole progress in a puny, languid, unsatisfactory manner, and propagate similar ones to others, unless there happen to be in the habit a more than ordinary degree of excitement. The remedy, and only perfect remedy, under these circumstances is obvious, but not very attainable—vaccination immediately from the cow alone.

* I have lately met with a decided or unequivocal instance, when the virus in inoculation was received into the system and produced small-pox without the least local effect being produced on the part inoculated: this person and another were inoculated on the same morning, the puncture shewed no signs of infection, but an indisposition and moderately variolous eruption ensued exactly synchronous in time with the other, and it did not appear that there were any means of the affection having been taken casually. A similar circumstance has been noticed as having happened, by some persons, but questioned by others. This, however, I consider a case removed from all doubt; in this instance, an eruptive pustule, about the time the others appeared, formed on the puncture, the puncture itself having faded or died away; this pustule was evidently an eruptive pustule differing entirely from a puncture pustule.

if they appear at all, about the eighth or ninth day. The fluid, both for inoculation and vaccination, is ordinarily taken on the eighth day, and frequently a day or two earlier.

It may be proper to mention here, that this representation of the present state of vaccination in Oxford, is to be understood as coming from myself individually, and consequently that I, alone, am responsible for its correctness.

There are two opinions, I think, which naturally present themselves respecting the cow-pox, viz. that it must either be an affection naturally incident to the cow, at least not naturally incident to the human species, or a propagation to the cow of small-pox by a milker, and returned again somewhat modified to the human species.

In either instance, it might be reasonably apprehended, that vaccination might fail in the object intended, ultimately; for, if the former of these were the fact, not being indigenous or congenial to the human system, it might in time wear itself out without occasional renovation from its original source; and, if the other were the fact, that in time it would acquire its original character of small pox,

It will be inferred, perhaps, from the tenor of this paper, that, upon the whole, I am rather an advocate for inoculation than vaccination; I acknowledge, that were inoculation universally adopted, I should be so, but not as it ever has been and ever must be expected to be, were it returned to again, practised partially; unless vaccination should hereafter be found, in consequence of its inefficiency, to be the greater evil, or the least beneficial of the two.

Amidst the various anomalies that sometimes occur, both in inoculation and vaccination, is the difference in time at which the infection commences. I have a vaccinated patient at this time, in whom there were no signs of infection at the puncture till the seventh day; after which it proceeded progressively on in the most satisfactory manner.

Oxford; Jan. 1, 1816.

Whilst we return our sincere thanks to Mr. Walker for his very candid communication, we are obliged to make a few remarks. It will be seen by our Journal, vol. xv. page 582, that, when vaccination was renewed from the cow at the Small-pox Hospital, no difference could be perceived in the human vesicle between insertion from this fresh fluid, procured under Dr. Jenner's inspection, at Berckley, and what had gone through a succession of 1000 human subjects. Respecting the origin of the disease, we cannot help regretting that a subject capable of demonstration, should be left in doubt. Why will not some village practitioner inoculate a cow, or repeat the experiments made with the grease in horses?—EDIT.

For

For the London Medical and Physical Journal.

[We insert in this place the following Report, to prove, whatever may be the case in Oxford, the increasing confidence in cow-pox in London. It shows, amongst that order of the public who have hitherto been supposed most hostile to it, that vaccination has gained in the proportion of more than 700 to 1; and this in a season when the prevalence and fatality of small-pox must have induced the strictest inquiries.]

An Account of the Number of Patients admitted in the Hospital for the Small-Pox, for Inoculation, and for Vaccination, at St. Pancras; and the Number of Out-Patients Vaccinated; also the Number of Mothers admitted as Boarders to Nurse their Children under Five Years of Age, from January 1, 1815, to January 1, 1816.

	Number of Patients admitted.			Number of Out-Patients.	Number of Mothers admitted to Nurse their Children.
	Natural Small-Pox.	Inoculated.	Vaccinated.	Vaccinated.	
1815:					
January	7	3		45	
February	5	7		93	
March	3	2		148	
April	4	4	3	334	
May	8	3		474	
June	4	1		306	
July	12	1	2	183	
August	10			190	
September	5	1		201	
October	12		2	298	
November	17	4		138	
December	14		2	30	
	101	26	9	2440	6
Died	31				

Increased Number of Patients admitted during 1815, &c. viz.
 With the Natural Small-Pox ----- 22
 For Inoculation ----- 1
 For Vaccination ----- 1
 Increased Number of Out-Patients for
 Vaccination ----- 761

JOHN CHRISTIAN WACHSEL,
Apothecary and Steward.

January 4, 1816.

For

For the London Medical and Physical Journal.

Case of Fatal Colic from the Lodgement of a Chocolate Nut in the Appendicula Vermiformis; by OLIVER PRESCOTT, A.M. of Newburyport.

AS I do not recollect meeting with any case on record similar to the following, and as it is very possible that an extraneous substance, such as plum or cherry stones, may have in other instances given rise to similar cases, and thus have proved the hidden and unsuspected cause of obstinate and incurable colic;* I have thought it might be useful to make a communication of it to the public.

On the afternoon of Tuesday, the 10th of January, 1815, I was requested to visit Captain Parker Robert, of this town, aged forty-two years; he has for some years past been master of a merchant-vessel in the European trade; his health has always been good, never having experienced any sickness or considerable indisposition in his life, or had occasion (as he says) to apply for medical aid, excepting in one instance, which was at Cadiz about twelve months since, as will be mentioned. His complaint was an obtuse, deep-seated pain in the right side of the abdomen, just above the os ilium, but towards the lumbar region, accompanied by a tenderness of the bowels generally. He has experienced these sensations constantly, more or less, for several days; and expecting that he should find relief by an evacuation of his bowels, he had taken of his own accord, two days previous to my seeing him, a dose of rhubarb, which he says operated freely, but did not afford the expected relief, or produce any alleviation of the pain. His eyes had a yellow tinge, and his countenance exhibited a jaundiced hue, but there was no hardness or acceleration of his pulse, or morbid heat of the surface; his tongue also was clean. From the part pointed out, as the more immediate seat of pain, I concluded its source to be in the cæcum, or commencement of the colon, occasioned by a deficiency of bile in the intestines, and probably an accumulation of indurated fæces.

I prescribed a few grains of calomel, and directed them to be followed in half an hour by a dose of pills composed of aloes g. gamb. and nitre. When I put the pills into his

* About three years ago, a plum-stone swallowed proved fatal to the daughter of an eminent practitioner in Southampton-row, London. The subject was examined after death, and inflammation found in every part of the abdominal viscera.—EDIT.

hand,

hand, he enquired if they were bilious pills, saying that he had once experienced a similar affection of the bowels, about a year since, when at Cadiz; that he applied at that time to an English physician for advice, who gave him for the complaint a few pills, which he called bilious pills—these operated well, and afforded so much relief that no other medicine was taken, but that several days elapsed before his bowels felt entirely free from tenderness.

He took but four pills, which produced four copious ejections, and each operation was followed by mitigation of his pain. About the middle of the following night, he complained of feeling cold, and had a severe ague fit, his wife applied a warm woollen-blanket next to his body, and passed the warming-pan about him. As the chill went off, the pain returned with increased violence, and soon became so severe that I was sent for. I found him in very great distress, the pain being fixed altogether in the place of its origin, viz. above the spine of the right ilium, and as I supposed at the commencement of the colon. His pulse was small, but slow and soft; and as the cathartic had operated so freely, the pain was now attributed to spasm. A dose of opium was accordingly prescribed and repeated two or three times; the whole quantity given might have been eight or nine grains in all, after which he became easy and disposed to sleep; but this calm, however, was only of short duration, for in about half an hour he aroused in very great agony—but his distress was now of a different kind, his sensations being as if his bowels were distended to the utmost, so that there could be no room for him to breathe; he felt also a pressing inclination to pass his urine, and said repeatedly that his bladder would burst if his urine did not soon flow. His abdomen on examination was found rather tense, but not greatly swelled or inflated, and there was no such tumor above the pubes as is usual where much urine is collected in the *vesica urinaria*. Dr. Bradstreet was called in at this time, and concluded with me in consultation, that these symptoms were occasioned altogether by spasm. Camphorated oil was rubbed on the abdomen, a large epispastic applied over the original seat of pain, and an enema administered, which was also soon repeated. In an hour or two he found considerable relief, but without having passed any urine; during this distress preparation was made for drawing of blood, but the coldness of the surface and smallness of the pulse deterred us from opening a vein. Eight grains of calomel with camphor and nitre were now prescribed, with directions to repeat the like dose every six hours; he was also directed to take frequently of supercarbonate of potass dissolved

dissolved in water, in the proportion of one drachm of the former to two pounds of the latter. I visited him at evening and found he had passed a more comfortable day than was expected, and his urine had passed without much difficulty; he was directed to continue the same course of medicines, and to take two grains of opium if the pain should become severe.

12th, Thursday. He has had a night tolerably free from pain, but has taken opium at different times to the amount of six grains in all—perspiration is free and has been so through the night—the pain has shifted and is now most severe on the opposite side of the abdomen. The epispastic was directed to be applied over the part now in most pain, and the patient ordered to continue the powders and follow the other directions. In the evening Dr. Noyes visited him with me, and advised a continuance of the same course of medicines, &c. and as there had been but two very small discharges from the bowels this day, or even since the morning of the 11th, it was agreed that he should take two ounces of ol. ricini early the next morning: his pulse is full and soft.

13th, Friday. Visited this morning with Dr. Noyes—he has taken but one grain of opium and has had considerable rest during the last night—the symptoms and his appearance are such as encourage the hope of a favourable termination of the disease—the powders of calomel, nitre and camphor, and the solution of subcarbonate of potass were advised to be continued, and he was directed to take this afternoon one ounce of manna and one fourth of an ounce of senna in infusion—the like dose to be repeated every hour, until there is a free operation from the bowels.

When I visited him at evening, he had taken three doses of the manna and senna, and after trying to introduce an injection, had a pretty copious discharge from his bowels whilst I was present. I would observe that a discharge from the bowels always afforded temporary relief; he therefore was often pressing to have an enema injected. In the night he became extremely sick at the stomach, and puked several times—I was sent for, and after applying appropriate remedies the nausea wore off.

14th, Saturday. I found him at the morning visit tolerably easy, but he had had no stool since the one in the evening—I prescribed a pill containing two grains of aloes to be taken every second hour, and every other hour two grains of calomel, and that he should take two grains of extract of hyosciamus whenever the pain should prove severe. In the evening his abdomen was much less tumid and he had less pain, but there had been no alvine discharge—he was therefore directed

rected to continue the pills, but to increase the dose of calomel to three grains—the camphor, &c. to be continued.

15th, Sunday. I was sent for at nine o'clock A. M. He has enjoyed a comfortable night, with frequent naps of sleep, &c. but he now feels again that sensation of fulness and distention as if bursting—there has been no discharge from his bowels since the evening of the 13th, although numerous injections have been administered. He was now directed to take one drachm of manna in a solution of cream of tartar, and repeat the dose every half hour—three ounces were thus administered in the space of one hour and an half; it produced no operation, and the distressing sensation of his bowels being ready to burst asunder increased. A blister was applied over the stomach and bowels, with such other directions as were deemed most appropriate to the circumstances of the case. At two o'clock P. M. Dr. Noyes visited him with me—there has been no operation from the cathartic medicines, and injections cannot now be received or retained—his pulse is accelerated to one hundred and forty beats in a minute, and are so small as to be felt or counted but with difficulty—his extremities are cold, and his breathing very laborious—his countenance is also changed, and he is evidently dying—he lived until about nine o'clock in the evening and then expired.

Permission having been obtained, his body was opened and inspected the day after his decease, by Dr. Noyes and myself. Inflammation had universally pervaded the abdominal contents, the intestines were agglutinated together and covered with coagulated lymph, and were found adhering in many places to the peritonæum; the cœcum and a considerable piece of the colon in its vicinity, as also part of the ileum, was in a complete state of sphacelation, and a small hard substance protruded through the cœcum, at the entrance of the appendix vermiformis, or rather at the mouth of the appendicula. This substance at first view was taken for a calculous concretion, but on applying the point of the scissors a piece of it broke off, and proved to be a cocoa or chocolate nut; this had been lodged in the entrance of the appendix, and no doubt was the immediate cause of the patient's death; and probably the same kind of complaint, mentioned as having happened at Cadiz a twelvemonth previous, was occasioned by this same nut. There were no scybala or hardened fœces discovered in any part of the intestines—the liver shewed no strong marks of disease or inflammation, nor was it enlarged—the gall-bladder was full and much distended with bile; finding it could not be emptied by pressure, it was opened, its contents were black as
ink,

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ink, and of a thick consistence like tar; the stain on the hands from it could not be washed off by soap and many waters; the stain was of a deep yellow colour—the biliary ducts were found to be impervious to a probe, &c.

The family of the deceased have never heard him mention the circumstance of his having at any time swallowed such a substance: the chocolate nut must probably have passed into the stomach by some accident, and by its gravity have obtained a lodgment in this receptacle, and have filled it too completely to be removed. It might have remained in this situation for a long space of time and proved inert, whilst the bowels were properly supplied with healthy bile, and discharged their functions in a proper manner; but so soon as the bile became obstructed, the deficiency of this necessary fluid occasioned torpor and spasm of the intestinal canal; under such circumstances this extraneous substance became mischievous and productive of irritation, inflammation, gangrene, &c. Whether this reasoning be correct or otherwise, the nut thus lodged, proved unquestionably the immediate cause of our patient's death. It was too firmly wedged in the appendicle to have been displaced by any means which could safely have been employed; but had its existence in such situation been foreseen, venesection, the warm bath, and a free internal use of some bland oil might probably have afforded the most likely means for relief.—*New Eng. Journal.*

For the London Medical and Physical Journal.

On the Identity of the Nervous and Electric Fluid; by
T. PURTON, Member of the Royal College of Surgeons.

IN the 192d Number of your Journal for February last, I was much gratified in finding the same hypothesis revived, respecting the identity of the electric and nervous fluid, which I published in your Journal many years ago.* I hope Mr. Smerdon will continue his researches, as he appears to possess that peculiar acumen for investigating intricate subjects, which is so essential to the elicitation of the truth.

Alcester, Warwickshire;
January 10, 1816.

* Vol. IV. p. 334, and Vol. VII. p. 324.

For the London Medical and Physical Journal.

On Bleeding in Peripneumony; by Dr. ROBERT KINGLAKE.

FACTS have lately occurred that fully confirm my previous opinion, that bleeding is not usually carried far enough in the early stage of this threatening malady, either to insure early recovery, or to obviate the production of irreparable mischief. Bleeding, in this disease, as in most others of an inflammatory nature, is usually directed more against the violence of the attending symptoms, than against the actual morbid state itself. The necessary consequence of this insufficient remedy is a mitigated continuance of the disease, and nothing like its complete extinction. The partial benefit thus obtained often proves injuriously fallacious, by inducing an erroneous calculation as to the event, and a premature remission or neglect of necessary remedies.

An inflammatory affection is very far from being subdued when repressed in its violence. The highly-excited state of vital power constituting inflammatory disease cannot be promptly and effectually reduced within safe and convalescent limits, without extending the remedy employed to the length of radically correcting the altered conditions on which the disease essentially depends. What, then, in inflammatory excitement, are those morbidly altered conditions? They consist in an excess of vital action that at once threatens a destructive exhaustion of living power, or such a disorganization of structure as would be incompatible with animal life. If, then, the immediate excitement be the efficient cause of this dangerous state of disease, it must be admitted that the most direct and effectual mode of relief should be firmly and unsparingly employed. No article in the materia medica can be implicitly depended on for its powers in overcoming this disease with sufficient rapidity to prevent the irreparable injury which its undue protraction might occasion. No medicinal influence can quickly enough arrest the hurtful progress of inflammatory action incessantly augmenting under the unabated stimulus of vascular distention. No exciting power whatever is so universal, and so important in its operation in the animal economy, as that of the stimulus of distention. Both life and health are essentially connected with its natural state, and its excessive action may be regarded as the proximate cause of inflammatory disease. The obvious remedy, then, for this species of disease is adequate bleeding. The existing circumstances must determine to what length it should be carried to accomplish the curative object in view. The state of the pulse, and the aspect of the

blood,

blood, are, in general, sufficient criteria to direct the judgment in that point; but the paramount and infallible guide in those cases is the degree or quantum of disease to be subdued.

It should be recollected that the complete cure, and not the temporary relief only, is to be attempted. For this purpose, the sanguiferous vessels should be durably replenished as far as may be necessary to overcome the inflammatory action. This can only be effected by reducing the powers of life to an ebb that would be too low to admit of a continuance of inflammatory action. Scanty and desultory bleedings will not answer this end: they must be ample, and renewed at intervals sufficiently short to preserve and carry on the advantage of a former bleeding. On this scheme of making one bleeding subservient to another, in securing the curative benefit of vascular depletion, it has been for some time past my practice to direct an emission of blood in high inflammatory diseases, such as peripneumony, phrenitis, hepatitis, enteritis, &c. every six hours, until the characteristic symptoms of the affection shall disappear, or the pulse shall have wholly lost its hardness, and have evidently declined in strength.

In many instances this practice has been pursued with the most happy and encouraging success, under circumstances in which the usual treatment would have probably been unavailing. The practice of drawing blood once in either twenty-four or forty-eight hours in acute inflammatory affections has the effect only of diminishing the apparent violence of symptoms, whilst the exhausting and disorganizing influence of protracted inflammation is doing irretrievable injury. An inflammatory disease unchecked, or rather not cured in the early stage of its existence, will, after the lapse of a week or ten days, have induced a perilous state of indirect debility, that would render the free bleeding applicable to inflammatory action at its commencement wholly inadmissible.

Many cases of this description are within my professional recollection, in which the opportunity of benefiting by early bleeding was unhappily lost, and could not be supplied in the late stage of the disease by any thing better than inadequate and doubtful means of assistance. Much observation has enabled me to come to this practical conclusion, that three bleedings, to the extent of sixteen ounces at each time, performed at equal distances within twenty-four hours, will go farther towards overcoming visceral inflammation than twice that quantity would do in double that period, and with infinitely

infinitely less risk of either gangrenous exhaustion, or destructive disorganization.

The guide for the precise time of renewing a bleeding in inflammatory disease should be at the *incipient* stage of the *re-action* ensuing the vascular contraction that takes place after losing a considerable quantity of blood. If this re-action be permitted to go on and establish itself, the former violence of the inflammatory disease, of which it is a part, will be restored, and thus may the conflict be prolonged to an indefinite duration, and with consequences full of danger to the safety of the patient.

Thus it may be clearly seen that bleedings may, in some instances, be renewed even at intervals of three hours instead of six, provided the vascular re-action referred to should have so soon shown itself. It would be unwarrantable, and necessarily hazardous, to repeat bleeding before some degree of re-action had occurred, as it might incapacitate the resources of life from making head against the debilitating influence of the former bleeding, in which case life itself even might be extinguished. This is illustrated by the destructive effects that have been known to result from premature bleedings in concussions of the brain. The paralyzing influence of a violent shock abruptly inflicted on the nervous system must subside on these occasions, and returning energy be manifested by re-active efforts in the vascular system; before bleeding could be profitably or safely employed in such circumstances.

The large and frequently renewed bleedings here proposed must be understood to be exclusively confined to the early stage of acute inflammatory diseases. The object is to cut short a morbid violence that could not be prolonged without imminent risk, and which, therefore, should not be tampered with, lest an undue forbearance of the necessary means of relief should, as I verily believe to be often the case, baffle every subsequent endeavour to avert the destructive consequences. In the more advanced and chronic states of inflammatory disease, small bleedings, at longer distances, may importantly benefit under occasional circumstances of vascular plethora connected with visceral congestions and other forms of disease; but on this subject I shall reserve what further occurs to me to say for a future communication.

Taunton;
January 6, 1816.

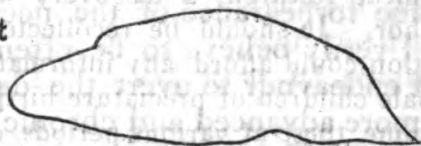
For the London Medical and Physical Journal.

Case of a Bony Substance extracted from the Rectum of a Young Man; by LEWIS HENRY, Esq. Madeira, Member of the Royal College of Surgeons, London.

WHEN the patient applied to me, I found him suffering under great constitutional irritation; his pulse 130, his countenance pale, cold sweats, frequent faintings, vomiting of a bilious matter, and frequent inclination to go to stool, with tenesmus. On examination of the rectum, the bone was found so strongly attached to the part, that with difficulty I extracted it with my dressing forceps; some bleeding succeeded, but of no moment; and, when the bone was extracted, my patient found himself apparently well. The next day, introducing a bougie up the urethra, I found that the point of it passed through an opening made by the bone. The peristaltic motion of the rectum could not have forced the bone to such a degree as to produce this violence: the bone must have penetrated the urethra by the strong action of the sphincter ani. The patient does not recollect ever swallowing the bone. Constitutional irritation must have been occasioned by the obtuse point of the bone pressing against the end of the great sympathetic nerve situated on the point of the os coxigis.

The bone is in my possession. It is an inch and a half in height, and a quarter of an inch in breadth; it has a sharp point and acute edge, and the other extremity is also loose and irregular; the other edge is rough and spongy, with a small membranous substance attached to its acute point. I shall give here an outline of it.

This obtuse point
was pressing
against the
os coxigis.



This point was pe-
netrating the
posterior part of
the bulb of the
urethra.

We are glad to find our correspondence renewed with Madeira since the departure of Dr. Andrews, and shall be thankful to Mr. Henry for further communications. Has he any thing to add, on the subject of the leprosy of that island, to what we have learned from Dr. Adams?—EDIT.

COLLECTANEA MEDICA,

CONSISTING OF
 ANECDOTES, FACTS, EXTRACTS, ILLUSTRATIONS,
 QUERIES, SUGGESTIONS, &c.

RELATING TO THE
History or the Art of Medicine, and the Auxiliary Sciences.

Quicquid agunt medici,
 Nostri farrago libelli.

*On Hernia Congenita; from Mr. WADD'S Cases of diseased
 Bladder and Testicle.*

THE discovery of the Hernia Congenita is due almost to our own times, for, highly as we may estimate the industry of the ancients, it must be admitted that the whole of this intricate complaint was entirely unknown to them. Like most other discoveries, it was progressive; and like most others in which Mr. Hunter has been engaged, it has remained as he left it.

Mr. Samuel Sharp was the first person who remarked an hernia, in which the testicle was found in contact with the gut, or, as it was then expressed, included in one sac. Baron Haller and Mr. Pott, about the same time, endeavoured to account for this, by remarking that the original seat of the testicle is in the abdomen. Both conceived that it did not reach the scrotum till after birth, in consequence of which, that the gut was very liable to come down with it. Had this been really the case, the disease must have been not only common, but, without some unknown provision, almost universal.

It was reserved for the talents of Mr. J. Hunter to unravel this mystery; and, in my opinion, there does not exist, in the whole history of anatomical research, a discovery which does greater honour to the author. It should be recollected that no common subjects of dissection could afford any information. The inquiry was confined to male children of premature birth, and it was even necessary to examine these at various periods of utero-gestation. All this, however, was accomplished by a young man, till then scarcely known to the world, and in such a manner as to gain the acknowledgment of a veteran,* whose name resounded through Europe, who was engaged in the same research, not only at the same time, but for several months before him.

This subject is so accurately detailed by Mr. Hunter, in his account of the "situation of the testis in the fœtus," that I shall only refer the reader to that paper. There is, however, one passage which equally marks his genius, his industry, and his modesty, yet

* Haller,

I do not recollect that it has been noticed by any subsequent writer. Even Mr. Laurence, in his valuable treatise, in which he has given a long and ingenious chapter on *Hernia congenita*, has, I believe, left it unnoticed: I mean the comparatively small size of the testicle, when found in contact with the gut. Mr. Pott speaks of the testicle as wasted, which subsequent writers have considered as the effect of absorption from the pressure of the gut; but the pressure is not much greater than in common hernia; besides which, the diminutive size of the testis will be found at an age, when the pressure must have been of much shorter duration than in others, where the testicles retain the natural size.

The following are Mr. Hunter's words: "It is not easy to ascertain the cause of this failure in the descent of the testicle; but I am inclined to suspect that the fault originates in the testicles themselves; it is, however, certain that the testicle which has completed its descent, is the largest, which is the more evident in the quadruped than in the human subject; as in these we can have an opportunity of examining the parts when we please, and can determine how small, in comparison with the other, that testicle is which has exceeded the usual time of coming down; it never descends so low as the other."

The above consideration, added to the condition of the parts in *hernia congenita*, very much confirm Mr. Hunter's opinion, that the detention of the testicle arises from an imperfection in the gland itself.

The cases here represented, the only two of which I have taken drawings, are sufficient to illustrate the subject. And in every other case of *hernia congenita* which has occurred to me, the diminutive size, and flabby texture of the testis, afford the presumption of defective organization, a circumstance of little consequence to the subject, when only one testicle is in this condition.

A rupture may have the true congenital character, though it does not make its appearance till the age of puberty, or even manhood. It frequently happens that the testicle is in its progress downwards, and arrives at the groin at the age of fourteen or fifteen. At this time, even if the testicle descends by itself, a rupture is sometimes suspected, and attributed to exertion during some juvenile sport. Nothing can be more unpardonable in a surgeon, than a negligent examination of a part submitted to him. Under circumstances of *hernia* at all complicated, at any age, but particularly about the period above mentioned, the scrotum should always be examined, and any preternatural situation of the testicle will instantly be detected. It should be recollected, too, that the discovery will redound much to the credit of the examiner, who will have the reputation of discovering what was before, perhaps, kept a profound secret.

Having remarked that the congenital hernia is a discovery of modern times, and having, in the present inquiry, referred in a very general manner to most of what has been written on the subject,

ject, I cannot withhold from the reader the interest I felt from one part of the controversy between Mr. Pott and Dr. W. Hunter. Mr. Pott, in his otherwise elegantly written performance, uses the word *congenial* hernia. It surprised me much, that so improper a term should pass unnoticed during the heat of the controversy, and even till Mr. Laurence published his valuable and comprehensive Prize Essay in 1807, in which, with little ceremony to a name the just pride of St. Bartholomew's, he calls the term adopted by Mr. Pott "*perfectly absurd*, as applied to this or any other rupture."

The use of the term is, however, very neatly accounted for, but by no means defended, in a candid review of Mr. Laurence's work, in the 19th vol. of the Medical and Physical Journal. Since that time Mr. Laurence has published a second edition, in which he expresses the same surprise. This shews that the perusal of periodical works ought not to be considered as mere frivolous employment; they often furnish the means of information beyond the most laborious research: for, though the present question may seem unimportant, yet, as a fact, it is valuable, and may lead to others much more so.

[In our next we shall give our analysis of the above work.]

THE late discoveries of the British and foreign chemists threaten, if not to form a new system, at least a new nomenclature, in one branch of that most interesting science.

We need only hint to most of our readers that every acid is supposed to be a compound of oxygen and some *radical* or *base*. The former term we prefer, as the latter is also applied to the alkali which neutralizes an acid. But this ingenious doctrine, like most others in which we make premature attempts at generalizing the phenomena of Nature, has been disputed by no less a philosopher than Sir Humphry Davy. To render our history as intelligible as possible, we shall first consider the properties, as far as they are discoverable, of

Muriatic acid gas;

Oxymuriatic acid, and Chlorine and Euchlorine; and

Ionine;

with a few remarks on the combination of each.

Muriatic acid was, like the other acids, supposed to be a compound of oxygen and some unknown radical. Though this radical has never been discovered by itself, being, as was supposed, always mixed with a certain portion of water, or with an alkaline or metallic base, at the same time it is admitted, that the water never can be separated, or even detected, in the manner which is easily accomplished in most other gases.

Oxymuriatic acid is said to be a compound of muriatic acid with a larger proportion of oxygen: hence its name.

But on the authority of a name illustrated by a new mode of detecting the elementary parts of substances with an accuracy hitherto

hitherto unknown, we are assured that oxymuriatic acid, which, from its name, might be supposed to contain a superabundance of oxygen, must be considered a simple substance, till we can decompose it, or form it by synthesis, neither of which has been hitherto accomplished.

To this hitherto undecomposed substance Sir H. D. has given the name *chlorine*, from its green appearance. When the gas was extracted in such a manner as to supersaturate it, as some would call it, with oxygen, it might be called hyperoxygenated muriatic gas, according to the common theory; but the last-named philosopher considers muriatic gas as only a compound of chlorine and hydrogen. The hyperoxygenated muriatic acid, he admits, contains oxygen, which is easily separated. In our little judgment it might, therefore, have been as well to designate this substance *oxygenated chlorine*; but, as we have such high authority for a different term, we shall, with him, use the word *euchlorine*.

Thus, muriatic acid, though we place it first in order, is considered a compound of oxygenated muriatic acid, or chlorine and hydrogen.

Chlorine then, or, as other chemists have called it, oxygenated muriatic acid, is a simple substance, and euchlorine a combination of chlorine with oxygen; and it must be admitted that all the facts brought forward by either party are explicable by either theory. This may, by some, be considered as derogatory to true philosophy; but to us it appears the triumph of improved science, when men hold different opinions, yet none accuses another of distorting facts in support of his own.

Having thus given a general view of these discoveries, and the different names by which their products are designated, we must introduce our readers to another substance and another name.

“The substance in question, *Iodine*, is prepared from kelp by a very simple process. The kelp is lixiviated with water, and the solution evaporated to dryness. This dry salt is put into a tubulated retort, with a short neck fitting into a large globular glass receiver, leaving room for the air to escape: strong sulphuric acid is poured on the salt through the tubular of the retort, a violent effervescence ensues, and a violet coloured gas is driven off in abundance, which condenses on the receiver into shining crystallized spiculæ of a metallic appearance, somewhat resembling very fine plumbago. This substance is *iodine*, so called from the *violet* colour (*ιωδης*) which it assumes when in vapour, and may be washed out of the receiver with water.

“Instead of using the entire saline contents of kelp, the solution may be boiled down and crystallized, and the mother water of these first crystals, separately evaporated to dryness, will yield the iodine more abundantly than the whole salt. Neither the first crystals of the solution of kelp, nor the residue insoluble in water, will afford any iodine.

“Iodine is an opake shining solid, permanent at a moderate
3 temperature

temperature. When heated to about the temperature of boiling water it totally evaporates, forming a beautiful violet-coloured vapour, which immediately again condenses unchanged on the cooler part of the vessel.

“The chemical properties of the iodine hitherto discovered are very curious. It possesses in a high degree the electrical properties of oxygen and oxymuriatic acid, and when combined with hydrogen it forms a peculiar *acid* very soluble in water, capable of assuming the gaseous form, and bearing the same relation to iodine that muriatic acid does to chlorine. The action of the different reagents on iodine will be the easiest understood by the reader by bearing this relation in mind.

“When dry iodine and phosphorus are placed in contact, a reddish-brown substance is produced, and no gas is given out. When just moistened, copious acid fumes appear, which form a permanently elastic acid gas. The same acid is produced in liquid solution when the phosphorus and iodine are combined under water. In either case phosphorous acid is generated, together with the peculiar acid of iodine. If the iodine much exceeds the phosphorus, a red insoluble compound of the two is produced; but when the proportions are properly adjusted, the whole resolves into a limpid acid liquid, containing only phosphorous acid and the acid of iodine dissolved in water. These may be separated by distillation. The first liquor that condenses is mere water; but when the contents of the retort become very concentrated, the acid of iodine distils over, and at last only phosphoreous acid remains, which gives out abundance of phosphuretted hydrogen.

“This may be explained on Sir H. Davy’s theory, by supposing that dry phosphorus and iodine simply combine into a compound analogous to that of phosphorus and chlorine; but when water is present it is decomposed, its oxygen acidifying the phosphorus, and its hydrogen acidifying the iodine, in the same way as hydrogen is supposed to convert chlorine into muriatic acid.

“The acid of iodine, when gaseous, is without colour, has nearly the smell of muriatic acid, smokes when exposed to the air, is rapidly absorbed by water, and gives a beautiful purple vapour with oxymuriatic gas. This acid gas, when shaken with mercury, is speedily and totally decomposed; a greenish-yellow substance, similar to the compound of iodine and mercury, is formed; and hydrogen is evolved equal in volume to half the acid gas.” See Appendix to Aikin’s Chemical Dictionary.

The following is from the last number of the Philosophical Transactions.

“*Some Experiments on a solid Compound of Iodine and Oxygen, and on its Chemical Agencies.* By Sir HUMPHRY DAVY, LL.D. F.R.S.

“In the two papers containing researches on iodine, which the Royal Society has done me the honour of publishing in the Transactions, no. 204. P actions,

actions, I have described a class of bodies consisting of iodine, oxygene, and different bases analogous to the hyperoxymuriates. In the last of these papers, I mentioned, that I had not been able to procure any binary combination of iodine and oxygene from these compounds, neither by the method proposed by M. Gay Lussac, namely, the action of sulphuric acid on the oxyiodes of barium, nor by other methods of my own institution; and that in experiments on the effects of the acids on the oxyiodes, new combinations only were formed. I have lately resumed this enquiry, and by pursuing a new and entirely different plan of operation, have at last succeeded in combining oxygene and iodine. In the following pages I shall describe the circumstances which led me to ascertain the existence of this compound, and I shall detail some experiments on its analysis and its chemical agencies.

“ In the course of my researches, I observed, that when a solution of the compound of iodine and chlorine was poured into alkaline solutions, or even into certain muriatic solutions, the precipitate was an oxyiodes; and this fact seemed to indicate, that iodine had a stronger attraction for oxygene than chlorine; iodine, likewise, has an attraction for chlorine; it appeared, therefore, extremely probable, that euchlorine, or the gaseous combination of oxygene and chlorine, would be decomposed by heat, and two compounds formed, one of oxygene and iodine, and the other of iodine and chlorine, or that a triple compound would be produced, from which chlorine could be easily separated, and on submitting the idea to the test of experiment, I found that I had not been deceived.

“ To produce the compound of oxygene and iodine, it is necessary merely to bring the euchlorine and iodine together at the ordinary temperature of the atmosphere. As soon as the euchlorine comes in contact with the iodine, there is an immediate action; its colour changes to bright orange, and a liquid is formed. When the euchlorine is in sufficient quantity, a white substance likewise appears. By the application of a gentle heat, the orange compound of chlorine and iodine may be made to rise in vapour; and the compound of oxygene and iodine remains.

“ When this compound is required to be dry, the euchlorine should be passed through dry muriate of lime (calcane) before it is admitted to the iodine. The apparatus that I have employed for producing the substance is a curved bent tube, in the form of an inverted L. (Γ), closed at one end, the closed leg of the tube being longest, and which serves as a retort for generating the gas; a thin long-necked glass receiver for containing the iodine; and a curved tube of smaller diameter than the first, and cemented or ground into it for conveying the gas into the receiver. The muriate of lime is placed in some dry paper in the upper part of the large curved tube; and to produce the substance from 40 grains of iodine, 100 grains of the hyperoxymuriate should be used, and four times the quantity of solution of muriatic acid of specific gravity

vity about 1.105; a very small spirit lamp should be employed to generate the gas; and, to prevent explosions, the heat should be applied with great care, and only to the bottom of the tube.

"The compound of oxygene and iodine, when entirely freed by heat from the compound of oxygene and chlorine, appears as a white semi-transparent solid; it has no smell, but a strong astringent sour taste. Its specific gravity is considerable, for it rapidly sinks in sulphuric acid. When heated strongly, it decomposes, undergoing fusion at the moment, and is entirely converted into gaseous matter and iodine, leaving no residuum whatever.

"It requires for its entire decomposition a heat which is rather below the boiling point of olive oil, and there seems to be little or no increase of temperature in the process.

"Its nature is proved both by analysis and synthesis, for when euchlorine acts upon iodine, the volatile substance produced has all the characters of the body produced by the immediate action of chlorine on iodine; and when the compound I am describing is decomposed in a pneumatic apparatus, the gas formed is found to be pure oxygene, and the solid sublimate produced is pure iodine.

"I endeavoured to determine the proportions of the elements in the compound, by decomposing it in glass tubes carefully weighed, and ascertaining the loss of weight of the tube, and the volume of oxygene evolved. I have used very small quantities of the substance, but as my balance is delicate, I do not think there can be any considerable error in the results. I give those which I consider as the most accurate.

"In one experiment, 3 grains of the substance afforded a quantity of oxygene equal to 517.3 grain measures of water, and lost in weight .68. In a second experiment, 2 grains afforded 348.3 grain measures of oxygene. In a third experiment, 1 grain yielded 191 grain measures of oxygen."

These remarks will prepare our readers for the following extract from the last number of Annals of Philosophy.

"The simple supporters of combustion, at present known, amount to three, namely, *oxygen*, *iodine*, and *chlorine*; and, if Ampere's hypothesis respecting *fluorine*, so ably supported by Sir Humphry Davy, be correct, it will constitute a fourth. Many important facts respecting these bodies have been lately ascertained. I shall state the principal of them in this place.

"1. *Oxygen*. This substance was raised by Lavoisier to a very high rank among chemical substances. He considered it as the acidifying principle, as the only supporter of combustion, and as capable of uniting with and modifying all other simple bodies. The modern discoveries in chemistry have deprived oxygen of a good deal of its dignity. Davy has shown that it forms alkalies as well as acids, and that many acids exist which contain no oxygen. It is not, therefore, the acidifying principle. This indeed is a doctrine which was all along maintained by Berthollet,

whose sagacity in many points of chemical theory deserves the highest admiration.

“Oxygen has lost likewise the property of being the only simple supporter of combustion. For chlorine possesses that property, perhaps, in a greater degree than oxygen, with this curious exception, that charcoal will not burn in it nor unite with it. Iodine is certainly a much less perfect supporter of combustion, since the only body hitherto observed to burn in it is potassium. It is amusing to observe the awkward attempts of the French chemists to preserve for oxygen the exclusive privilege of being the only simple supporter of combustion. According to them *combustion*, in the chemical sense of the word, is very different from the meaning which it bears among the vulgar. Nothing, says Thierry, is more similar to combustion than what takes place when phosphorus is introduced into chlorine gas. We have flame, and the phosphorus disappears. Nothing, on the other hand, is more unlike combustion, than the rusting of iron in a damp place. Yet the first, he informs us, is not a real combustion, while the second is. (Annales de Chimie, xciii. p. 53.) It is surprising that these gentlemen do not perceive that they are merely altering the meaning of a word, which has been known and understood ever since mankind were acquainted with fire. The burning of phosphorus in chlorine would be called *combustion* by every person of common sense who witnessed the phenomenon. Nor is there any thing in the chemical meaning of the term which is incompatible with its application to this and many other similar cases. The rusting of iron in a damp place would never be called combustion either by the vulgar or chemists, who considered the case with attention. It consists merely in the transfer of the oxygen of water to the iron. Thenard and Gay Lussac have arranged *chlorine* and *iodine* among combustible substances, merely because they have the property of combining with oxygen. If they had placed these bodies in a class by themselves, their conduct might have been excusable; but to call them combustible is absurd; because nothing similar to combustion, in any sense of the word, takes place when they unite with oxygen. The union cannot be directly accomplished, and is far from intimate. Why should the supporters of combustion not have the property of uniting with each other? It has been long known that the simple combustibles have that property. Sulphur unites to copper with such violence as to produce both light and heat in abundance; yet nobody on that account has thought proper to class sulphur among the supporters of combustion. Neither is it a sufficient reason to class chlorine and iodine along with sulphur, that all the three unite with hydrogen and form an acid.

“The only exclusive privilege which remains to oxygen is, that it alone, or its compounds, are fit for the *respiration* of animals, and necessary indeed to preserve life. The breathing of the other supporters of combustion is almost instantly fatal to animal life.

“2. *Chlorine* is now pretty generally admitted to be a simple supporter

supporter of combustion. Almost the only chemist of eminence who adheres to the old opinion is Berzelius. His opposition is founded on the supposed inconsistency of Davy's theory with the chemical canons, which he has established by a vast number of uncommonly accurate analyses. But this inconsistency, I am persuaded, he will find, on a closer examination, to vanish entirely. If this were the proper place, I think I could show that the doctrine of Davy and the canons of Berzelius agree perfectly with each other.

“ In Schweigger's Journal for May 1815 (vol. xiii. p. 72) there is a long paper by Professor Hildebrandt, stating several objections to Davy's theory of chlorine. I was extremely surprised on reading this paper to find that all the objections it contained had been examined and answered long ago, and that all of them were founded on mistakes. Chlorine, he says, converts nitrous gas into nitric acid, and therefore it must contain oxygen. This was the first experiment that I tried when Davy published his theory. I found that the change here stated actually took place; but on examining my chlorine, it was mixed with common air; and upon preparing pure chlorine, I found that it produced no change in nitrous gas. Davy afterwards made the same experiment, and published it; and the fact is now well known to all chemists of precision. Another objection is, that when common salt is decomposed by the galvanic battery, the chlorine appears at the positive wire. This, so far from being an objection, is a strong argument in favour of Davy's theory. Oxygen and iodine are likewise attracted by the positive pole; so should chlorine, if it be a simple supporter of combustion.

“ Another objection is, that, when metals are burnt in chlorine gas, they are converted into oxides. The fact is not so, unless water be present in the vessel; they are converted into *chlorides*, a variety of which have been described by Dr. John Davy. The other objections of Hildebrandt are all of a similar nature, and do not appear to me to be worth mentioning, as they have all been refuted long ago.

“ It is amusing to observe the efforts which the French chemists have made to deprive Davy of the honour of this theory. There is a long paper, by Bidault-de-Villiers, in the *Annales de Chimie* (vol. xciii. p. 32), to prove that Scheele did not consider chlorine as a simple substance. The proof is most extraordinary. Scheele's opinion was not adopted by chemists in general, not even by Davy himself; therefore Scheele did not maintain it. The very name, *dephlogisticated muriatic acid*, given to chlorine by Scheele, shows us what his opinion was. Phlogiston, in Scheele's opinion, as every body knows, was hydrogen gas. If, therefore, chlorine was muriatic acid deprived of hydrogen, it is obvious that he must have considered muriatic acid as a compound of chlorine and hydrogen; and accordingly this opinion was maintained by Kirwan in his *Essay on Phlogiston*, on the authority of Scheele. Scheele

says, in his Essay on Manganese, 'muriatic acid deprived of phlogiston, which is one of its constituent parts.' (*L'acide muriatique depouillé du phlogistique qui est une de ses parties constituantes.*)* I cannot conceive any thing more explicit than this.

"There can be no doubt that it was the experiments of Gay-Lussac and Thenard, published in their *Recherches Physico-Chimiques*, that led Davy to form the new theory. So far their merit is conspicuous. But as they did not adopt the new theory in that work, but argued against it, nothing can be more ridiculous than to claim it after it has been established by another. If Gay-Lussac always maintained it, as he informs us, but was prevented from publicly embracing it by the authority of Berthollet, we may pity his pusillanimity, but cannot, on that account, admit his claim as the first propagator of a theory which he publicly opposed. As to M. Ampere, his posthumous claim cannot be maintained, as he published nothing whatever on the subject."

"A great number of papers on *iodine* have been published during the course of the year 1815; but after the very complete treatise on that subject by Gay-Lussac, inserted in the fifth and sixth volumes of the *Annals of Philosophy*, these papers cannot be expected to exhibit much novelty. The following are the only new facts that I have observed in them.

"The *iodide* of gold is a white powder. Uranium is precipitated by a hydriodate of a dirty dark colour. Link, Fischer, and Steffens. (*Schweigger's Journal*, vol. xi. p. 134.)

"The iodide of antimony has a dark red colour, and is soluble in water. The iodide of bismuth is orange. Its solution is not precipitated by potash. The iodide of arsenic is dark purple red, and possesses acid properties. The iodide of tellurium is dark purple-red, and forms a colourless solution with potash. Ruhland. (*Ibid.* p. 139.)

"Dr. Wollaston has determined the figure of the crystal of iodine to be a rhomboidal octohedron, whose axes are to each other as the numbers two, three, four. (*See Annals of Philosophy*, vol. v. p. 237.)

"Gaultier de Claubry and Stromeyer have ascertained that starch is the most delicate re-agent for detecting the presence of iodine. The iodine must be uncombined. Starch does not detect iodine in a solution containing hydriodic acid or iodic acid. But if an acid be poured in so as to disengage the iodine, the starch shows the presence of that substance by the indigo-blue colour which it assumes. (*Gilbert's Annalen*, vol. xlix. p. 140; and *Ann. de Chim.* vol. xciii. p. 85.)

"M. Gaultier de Claubry has analyzed sea water and several fuci from the English channel. He could detect no iodine in sea

"* *Memoires de Chymie* de M. C. W. Scheele, i. p. 69. I quote the French translation, that the French chemists may consult the passage, though this deprives me of Kirwan's notes."

water; but he found it in the following sea plants: fucus saccharinus, fucus digitatus, fucus vesiculosus, fucus siliquosus, fucus filum. (See Ann. de Chim. vol. xc. p. 75, 113.)

“ I have been informed that Mr. Smithson Tennant, before his death, succeeded in detecting iodine in sea water; but I know nothing respecting the method which he followed in his investigation.

“ Sir Humphry Davy has discovered a solid combination of iodine and oxygen. I place it here because the discoverer does not consider it as acid unless it be combined with water, though I entertain a different opinion from this ingenious chemist. It is obtained by exposing iodine to the action of euchlorine gas. The gas is absorbed, and a solid substance formed, consisting of two compounds; the first, a combination of chlorine and iodine; the second, of oxygen and iodine. By the application of a gentle heat, the first compound is driven off, and the second remains. Sir H. Davy gives it the name of *oxiodine*; but perhaps the term *oxiodic acid* would be more proper. It is white, and semi-transparent; has no smell, but a strong astringent sour taste. It sinks rapidly in sulphuric acid. A heat rather below 600° decomposes it. According to Davy's experiments, it is composed of

Iodine	81·28.....	1 atom
Oxygen.....	18·72.....	4

100·00

“ This compound is deliquescent. It is very soluble in water. The solution reddens vegetable blues, and then destroys them. It acts upon all the metals, and combines with alkalies, earths, and metallic oxides. It unites likewise with the acids, and forms with them solid compounds, which possess remarkable properties.”

CRITICAL ANALYSIS OF RECENT PUBLICATIONS

IN THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND
MEDICAL PHILOSOPHY.

*Philosophical Transactions of the Royal Society of London,
for the Year 1815. Part II.*

Some additional Experiments and Observations on the Relation which subsists between the Nervous and Sanguiferous Systems; by A. P. WILSON PHILIP, Physician at Worcester. Communicated by T. ANDREW KNIGHT, Esq. F. R. S.

In the first of these experiments it was found, that, when the spinal marrow of a frog was destroyed, by moving in various directions a wire passed through a hole in the lowest part

part and up to the brain, that still the circulation was continued in the web.

“ The labours of M. le Gallois, (continues Dr. Philip) by ascertaining some facts of great importance, while others immediately connected with them escaped his observation, have involved the subject in such seeming contradictions as, at first view, to have persuaded me that some of his experiments were inaccurate. On repeating many of them, however, I was convinced of their accuracy. In some the destruction of the cervical part of the spinal marrow immediately destroyed the function of the heart; yet in others the destruction, in a different way, of the same, or a larger portion of the spinal marrow, little affected it. In some, the greater part of the spinal marrow was destroyed without destroying the function of the heart; yet in others, after the spinal marrow had been divided, he found the function of the heart destroyed by the destruction of either half.

“ It was the confusion arising from these, and similar difficulties, that occasioned him to observe that he had almost as many results as experiments, and that he had resolved to abandon the investigation, when his explanation of the first of the foregoing difficulties, founded on the supposition which suggested the above experiment, presented itself to him. Had it occurred to him to compare this supposition with the latter difficulty, he would have doubted its accuracy.

“ The seeming contradictions which appear in the experiments of M. le Gallois cannot be reconciled, except on principles different from those hitherto assumed by physiologists.”

“ It was evident in making the experiments related in that paper, that the laws which regulate the effects of stimuli applied to the brain and spinal marrow on the muscles of voluntary, and on those of involuntary motion, are very different. The following experiments point out more precisely in what this difference consists.”

The next experiment shews the effect of passing a wire in different directions through the brain of a rabbit. The voluntary muscles were no way affected, excepting when the wire approached the extremities of the nerves, which the author calls their sources, whether in the brain or spinal marrow.

Another rabbit was rendered insensible by a blow on the occiput. After part of the cranium was removed and the thorax laid open, the heart was found regularly beating. It is remarkable that no mention is made of respiration, the only important circumstance connected with this part of the experiment. The wires were passed, as in the last experiment and with the same result.

In the third experiment, spirits of wine were applied, but, though in contact with the extremities of nerves, produced no convulsion.

In another rabbit, after a blow on the occiput, these experiments were repeated on the brain, and on opening the thorax the pulsation of the heart was increased more than by mechanical injury to the brain. Whether the experiment was made on the cerebrum or cerebellum the consequence was the same.

In the fourth experiment, a rabbit's head was cut off at the occiput; the limbs were for a time convulsed, which effect was renewed by the slightest touch on the cut end of the spinal marrow. Spirits of wine produced no such effects, but chemical stimuli; the strong acids induced powerful contractions. After a time these effects ceased on the voluntary muscles, but increased the action of the heart.

By the sixth experiment, it appears that, though the action of the heart may be increased by various stimuli, yet it is not rendered irregular, till the power of the organ is nearly destroyed.

By the seventh experiment, that, to produce convulsion in the voluntary muscles, the stimulus must be continued and even varied; but that this is not necessary to the increased pulsation of the heart, and that, as long as the stimulus is continued, so long the increased action remains, not being lessened as some physiologists assert, by continuing the application, excepting only when tobacco was used, whose stimulating property was very inconsiderable.

Having thus shewn that chemical stimuli applied to the nervous system excite the heart more than mechanical stimuli, and that the reverse takes place in the muscles of voluntary motion: that both kinds of stimuli excite the heart after they cease to have any effect on the above muscles, that the heart is stimulated by an application to any part of the brain and nervous system, whilst the voluntary muscles are only affected from the extremities of nerves; that these stimuli, whilst they increase, never render irregular the motion of the heart, though the voluntary muscles are drawn into the most irregular spasms; that the latter are chiefly affected on the immediate application of the stimulus, whilst the heart continues its increased action as long as the stimulating process continues:—the author concludes this part of his paper, assuring us, with much solemnity, that this difference in the effects produced on the muscles of voluntary and involuntary motion seems involved in much obscurity, and must be explained before we can be said to understand the relation between the nervous system and the heart.

We could wish on this occasion, that the author, whilst about his experiments, had examined some other muscles of

involuntary motion besides the heart. All that he says concerning the heart, and much more, has been told us by Mr. Hunter, without the tediousness or disgust which attends the minute relation of experiments on living animals. We shall only quote two lines to teach Dr. Philip, that, before he repeats the tortures on frogs and rabbits, so justly censured by the celebrated fabulist, it might save them much misery and the valuable time of himself and the Royal Society, if he would see what has been done by others.

“The heart’s motion (says Mr. Hunter) does not arise from an immediate impulse on the brain, as it does in the voluntary muscles.”
—*Treatise on the Blood*, p. 148.

In consulting this passage, Dr. P. will see to how little purpose all his remarks on the motion or quiescence of the heart are, unless he attends to and describes the respiration at the same time.

But let us proceed to the rest of the paper, in which the author endeavours to trace the causes from which these differences (involved in so much obscurity) arise; and afterwards to ascertain whether the power of the blood-vessels, like that of the heart, is independent of the nervous system, or whether they are directly influenced by that system, or only through the medium of the heart.

“It appeared to me probable, from many experiments, that the cause of chemical stimuli, applied to the nervous system, producing a greater effect on the heart than mechanical stimuli do, is, that the former, from their nature, act on a larger portion of the brain and spinal marrow. If this opinion is correct, the mechanical stimulus will be rendered the most powerful by confining the chemical to a smaller space than the mechanical stimulus occupies.

“Exp. 8. Both in frogs and rabbits I applied to various parts of the brain and spinal marrow, and particularly to those parts from which the nerves originate, minute portions of strong spirit of wine, without at all influencing the action of the heart. When these small portions were applied to a great many parts, the heart began to beat more frequently. This of course was much the same thing as at once applying the spirit of wine to a larger part. We have seen in the foregoing experiments, that mechanical stimuli applied to any considerable portion of the nervous system, increase the action of the heart. It appears from the following experiments that we cannot affect the heart by mechanical stimuli confined to any small part either of the brain or spinal marrow.”

The last paragraph is a little complicated; we conceive, however, that, when the spirit of wine was applied to one part at a time, the heart was not affected; but, to all at once or in a quick succession, that the heart began to beat more frequently. Somewhat similar effects were produced when mechanical stimuli were used in a similar way. Some other experiments

experiments and remarks follow, from which the following conclusions are drawn:—

“That the heart is excited by all stimuli applied to any considerable part of the nervous system, while the muscles of voluntary motion are only excited by intense stimuli applied to certain small parts of this system.

“These facts being ascertained, the other differences observed in the effects of stimuli applied to the nervous system, on the heart and muscles of voluntary motion, are easily explained.”

For this explanation, we must refer our readers to the paper, and offer our own, which is at least shorter.

In all injuries done to any part of the body, the heart sympathises, and the more so as the injury is the greater. Without looking for any other final cause, we know that the means of repairing an injury is inflammation, and that under inflammation in most cases, the motion of the heart is accelerated. But this increased action of the heart will often occur before we can discover any other marks of inflammation, and cease, or even become less than ordinary, when inflammation is excited in some particular parts. All this is well known without such cruel experiments.

Some remarks follow on the effects of communicating sensation by the nervous ganglia. In these there is nothing new.

We are now led to the experiments which are to ascertain, “whether the power of the blood vessels is as independent of the nervous system, as that of the heart; and whether this system possesses over them the same kind of influence, as over the heart.”

Here it is agreeable to find that Dr. P. craves a little mercy for his suffering subjects.

“These experiments were made on the capillaries of the frog, which, from the extent and transparency of the web of its hind feet, and from its great tenacity of life, appeared the best subject for such experiments. It has been questioned, how far inferences drawn from experiments made on cold-blooded animals, can be supposed to apply to those of warm blood. Both Fontana and Dr. Monro observe, that in their experiments they found the system of both obeying the same laws. The experiments I have had occasion to lay before the society, tend to confirm this observation; and I may say the same of all the experiments I have made on both sets of animals. There are certain circumstances in which they evidently differ, in all others they seem to agree. The following experiments ought not to be unnecessarily repeated; and, as there is no part of the warm blooded animal on which they could be satisfactorily made except the mesentery, they would be attended with much greater suffering in this, than in the cold-blooded animal. Some of them, from the warm-blooded animal being less tenacious of life, could not be performed on it.”

This last remark is surely enough to shew that there is a difference in the economy of these two classes of animals. In the heart, this difference is the more striking, on account of the structure of their lungs, and the manner which cold-blooded animals can exist without continued respiration.

The succeeding experiment goes to shew that if a frog's head is cut off, and the spinal marrow destroyed, and the blood stopped by a ligature round the neck, that the circulation will for a time continue.—Did any one doubt it? or the inference, that the blood-vessels retain their power after the nervous system is destroyed.

The next experiment is to prove, that the vessels can support the motion of the blood independent of the heart. The experiments were all made on frogs, and are only remarkable for their unnecessary cruelty and unsatisfactory result, the economy of the animal being, as we observed, in whatever relates to respiration, different from the human.

We shall now offer the author's general conclusions, that our readers may see to what good purposes Dr. Philip has employed himself.

“ From the foregoing experiments and observations, it appears,

“ 1. That the laws which regulate the effects of stimuli, applied to the nervous system, on the muscles of voluntary and involuntary motion, are different.

“ 2. That both mechanical and chemical stimuli, applied to any considerable portion of the nervous system, increase the action of the heart.

“ 3. That neither mechanical nor chemical stimuli applied to the nervous system, excite the muscles of voluntary motion, unless they are applied near to the origin of the nerves and spinal marrow.

“ 4. That mechanical stimuli applied to the nervous system, are better fitted to excite the muscles of voluntary motion, and chemical stimuli, than those of involuntary motion.

“ 5. That, after all, stimuli applied to the nervous system, fail to excite the muscles of voluntary motion; both mechanical and chemical stimuli, so applied, still excite the heart.

“ 6. That both mechanical and chemical stimuli applied to the nervous system, excite irregular action in the muscles of voluntary motion.

“ 7. That neither excite irregular action in the heart, nor is its action rendered irregular by sedatives, unless a blow which crushes the brain be regarded as a sedative.

“ 8. That the excitement of the muscles of voluntary motion takes place chiefly at the moment at which the stimulus is applied to the nervous system, that of the heart continues as long as the stimulus is applied.

“ 9. That the muscles of voluntary motion are excited by stimuli applied to very minute parts of the nervous system.

“ 10. That no stimulus applied to any minute part of the nervous system, can excite the heart.

“ 11. That the heart obeys a much less powerful stimulus than the muscles of voluntary motion.

“ 12. That the facts expressed in the three last sentences 9, 10, 11, afford an easy explanation of those expressed in the preceding sentences.

“ 13. That the power of the blood-vessels, like that of the heart, is independent of the nervous system.

“ 14. That the blood-vessels can support the motion of the blood after the heart is removed.

“ 15. That the blood-vessels are directly influenced through the nervous system in the same way that the heart is.

“ 16. That analogous to what we observe in the heart, no stimulus or sedative applied to the nervous system, excites irregular action in the blood-vessels.

“ 17. That the power of the blood-vessels, like that of the heart, may be destroyed through the nervous system.

“ 18. That the office of the ganglia is to combine the influence of the various parts of the nervous system, from which they receive nerves, and to send off nerves endowed with the combined influence of those parts.

“ 19. That the will has no influence over the muscles of involuntary motion, because in their ordinary action they obey stimuli, over which we have no influence, and because at all times we neither see, nor are otherwise conscious of, their motions; and consequently cannot direct them.

“ 20. That we have reason to believe that the division of the encephalon into the cerebrum and cerebellum, relates to the sensorial functions, since it does not appear to relate to the nervous functions, the muscles of voluntary and those of involuntary motion being influenced in the same way by both.

“ 21. That the sedative effect is not the consequence of previous excitement, but the effect of a certain class of agents.”

It will be seen that we have omitted noticing some of the experiments, and consequently some of the results. We have, however, offered enough to shew the improvement our readers are likely to meet with by perusing the whole, which is the great object of reviewing.

Physiological Researches on Life and Death; by XAVIER BICHAT. Translated from the French, by F. GOLD.

(Concluded from our last.)

IN our last we gave as perspicuous a view as was consistent with our limits of the first part of this once popular work, concluding with one of those many physiological facts in which the accuracy and genius of Mr. Hunter has proved pre-eminent above all other philosophers.

The

The present division commences with "general considerations on death." Here we might have expected some notice of that most important distinction made by Mr. Hunter between absolute universal death and such a cessation of action as never can be restored. To the common reader the distinction may at first seem unimportant; but one who has repeated the experiments concerning digestion of the English and Italian physiologists, ought to have considered it maturely. Instead of this, we have no other division of death but sudden and gradual. The first comprehends injuries, apoplexies, and hæmorrhages in general; the second the more usual mode of death by old age or disease. It may be thought that the first division comprehends all that can be said concerning absolute universal death. The difference, however, will appear very evident, when, to use the author's words, after the death of the animal part, the organic part sometimes retains life. Thus, after all sensation from external objects has ceased, the circulation may remain. This, it is true, cannot continue long after respiration has ceased in red-blooded animals; yet, when respiration and circulation have ceased, it is well known that the peristaltic motion continues, and even the process of digestion. When these have ceased, still the parts remain susceptible of certain impressions. Of galvanism, perhaps, last of all. At length this also ceases, and putrefaction soon commences. Now, there are modes of dying in which sensation, respiration, circulation, the peristaltic motion, and even susceptibility to the galvanic influence, all cease at once. This is what Mr. Hunter very properly calls *absolute universal death*. The most certain means of producing this is by lightning. All other methods are uncertain; but a blow on the stomach, and the passions of the mind, are, after electricity, the most frequent causes. When this happens, a very sudden change takes place from high health, in which all the various functions are vigorous, to instant death in all the parts, with the cessation of action in all the organs. It is under these circumstances only that we find the stomach completely digested through its whole substance, because it is only under these circumstances that the gastric juice, secreted in full vigour, is applied to the dead stomach; and it is now universally admitted that the gastric juice can produce its effect only on dead matter. Having premised thus much, we shall proceed to an explication of the author's opinions on the various modes of death. These he divides according to the parts which die first. The parts most necessary to vitality he admits, with others, are the brain, the heart,

heart, and the lungs. With this view, he concludes his introductory chapter as follows:

"We shall first enquire into those deaths which begin at the heart, and afterwards into those which begin in the lungs and in the brain. I shall explain in what way, when one of these organs is affected, the others die; and then demonstrate by what sort of mechanism the death of the various other parts of the body ensues. Lastly I shall determine, from the principles which I shall then have laid down, the nature of the different species of diseases which are peculiar to the heart, the lungs, and the brain."

Before we proceed, it is absolutely necessary that we should caution our readers against the inaccuracy of this language. In most cases we shall find that all these parts die at the same time, though it may often happen that action may cease in one before it ceases in either of the others. We must, therefore, in our own minds, always substitute cessation of action for death. We shall offer an example or two by way of illustration, after which we shall cease to interrupt the order, unless where there is an absolute necessity to point out the difference.

M. Bichat proceeds to consider the influence of the death of the heart over that of the brain. In this chapter he shows satisfactorily that the only influence of the heart on the brain is by means of its vessels. Cut, says he, the cardiac nerves, and the brain is no way affected, nay even the actions of the heart are not directly modified by that section. In considering the two sides of the heart, he prefers, instead of the division of right and left side, to speak of them as two hearts, namely, the red-blooded and the black-blooded. This is precisely following Mr. Hunter's language, who always described quadrupeds and red-blooded animals having lungs, as possessed of a double heart, or of "two hearts, the pulmonary and the corporeal." In dividing this part of the work, it is not a little curious to see how our author falls into the language we have recommended from Mr. Hunter. In section the first, the term death is dropped, and cessation of action substituted. "In what way," it is asked, "does the *cessation* of the *functions* of the red-blooded heart interrupt the functions of the brain?" It is hardly necessary to answer this question, as we well know that not only the brain, but every other organ, languishes and dies, when deprived of arterial blood. We wish, however, the author had omitted some fanciful remarks which so much disfigure the writings of the continental philosophers. Because the red blood is necessary for the brain, must it therefore follow that the nearer the heart is to the brain, the more sagacious the animal must be, and even that men with short necks are wiser

wiser than men with longer necks? If there is any truth in this, it is certainly not sufficiently established to be admitted in a philosophical disquisition, and, what is more to the purpose, it makes no necessary part of the author's theories, or even of his proposed inquiries. It reminds us of Spurzheim's unfortunate remarks on the thick-necked animals being most salacious,—a remark which, had he confined it to the different form of the castrated from the entire animal of the same species, might have been admitted; but which, when extended to the possibility of inducing impotence by wounds in the neck, only shows us the impropriety of hinting at a theory the truth or fallacy of which should be reserved for demonstration.

As there is always an evident motion on the brain by the pulsation of the larger arteries, we are not disposed to dispute with the author whether this motion is necessary. We know it must exist as long as the heart beats, and that, when that ceases, death ensues. We shall therefore leave it to be determined by him and Sir Everard Home, who considers pressure as necessary to the brain.

The next section enquires, "In what manner does the cessations of the functions of the black-blooded heart interrupt the functions of the brain." This enquiry gives no adequate idea of the manner in which it is conducted. All the author's experiments go to show that blood extravasated on the brain by tying the jugulars, or air injected into the veins, is fatal; the first by inducing apoplexy, the latter by the high irritation it excites in the brain, as is proved by the consequent convulsions. In showing that the brain and not the heart is principally affected, the author again falls into the correct language of Mr. Hunter: in short, he does so whenever he finds himself under the necessity of explaining himself with peculiar perspicuity, in consequence of his engaging in controversy.

"Now, (says he,) what is the organ so readily affected by the contact of air? I affirm it to be the brain, and not the heart; and maintain that the circulation is annihilated only because the cerebral actions have previously been so.

"For, in the first place, in this kind of death, the heart continues to beat for some time after the cessation of the animal life, and consequently for some time after that of the action of the brain."

We now arrive at the inquiry into the influence of the death of the heart over that of the lungs. This inquiry goes no further than to show that, if the heart does not send the black blood to the lungs, that blood will not be oxygenated, and then the lungs, as well as every other part, will die.

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As little do we learn from what is contained in the succeeding chapter "On the influence of the death of the heart over that of all the organs," excepting one remark, to which we may hereafter return, namely, "that in reptiles and animals whose pulmonary structure is different from that of quadrupeds, the reciprocal connection between the heart and the brain is not so close, insomuch that the heart, detached from every other part, will continue to beat."

The fifth chapter is "on the influence of the death of the heart, as to the production of general death." Of this we shall transcribe the two leading paragraphs.

"Whenever the heart ceases to act, general death is produced in the following manner:—1st. For want of excitement, the cerebral actions are annihilated, and consequently an end is immediately put to all sensation, locomotion, and utterance. Besides, for want of excitement on the part of the blood, the organs of these functions would cease to act, even supposing that the brain were to remain intact, and exert upon them its accustomed influence. Thus the whole of the animal life is suddenly suspended, and at the instant of the death of the heart, the individual is dead for what surrounds him.

"The interruption of the organic life, which has commenced by the death of the heart, is produced at the same time by that of the lungs. The brain being dead, the mechanical functions of the lungs must cease: the chemical functions of the lungs must cease also, for want of the materials on which they are exerted: the latter are directly interrupted, the former through the medium of the brain."

Our readers will recollect, in our extract from Sir Everard Home's paper in the Philosophical Transactions, that he very justly observes, the heart may cease to beat for some time without the cessation of the powers of the brain; of which Mr. Hunter's case is a well-known instance. But we must agree with Bichat that if pressure is necessary for the action of the brain, it is impossible to conceive how this pressure can be preserved after the heart has ceased to act. It is therefore probable that neither pressure nor motion of the vessels are absolutely necessary for the functions of the brain, though without doubt they cannot be long continued without a regular supply of blood. The rest of the chapter only goes to prove, what no one will doubt, that if the blood is not regularly transmitted, the whole animal must die. We must, however, protest against the following as an universal aphorism:

"It is in this manner (says M. Bichat) also that we die from sudden affections of the mind. The news of a very joyful or a very melancholy event, the sight of a fearful object, of a detested

enemy, of a successful rival, are all of them causes capable of producing death. Now, in all these instances, it is the heart which is the first to die, the heart whose death successively produces that of all the other organs, the heart on which the passion is exerted."

In cases of pure syncope, the author is correct. If continued too long, the effect is as he describes; but, where the passion excited has been peculiarly violent, the action of the heart is not merely suspended, but the organ itself instantly dies, and all the other parts of the body die at the same time. This is proved by the immediate change which takes place over the whole body, by the muscles never stiffening, the blood never coagulating, and by the suddenness with which putrefaction follows. We shall not, therefore, enter into the difference of opinion between our author and the late Professor Cullen. Passions of the mind, when violent, seem to produce their effects on every part, and it is only because the effect on the heart is the most obvious to our senses, that it is soonest noticed; but if the effect is less sudden, and long continued, the brain more commonly suffers than the heart: madness ensues, under which the heart is only affected by sympathy, in proportion to the violence of the distemper in the brain.

The sixth chapter is very long, and somewhat diffuse—"On the influence of the death of the lungs over that of the heart." The principal object is to show that the heart does not cease to act merely from the want of oxygenated or red blood flowing into the right auricle, and thus proving a stimulus to its motion. This has been shown so repeatedly in Mr. Hunter's experiments on artificial breathing, that all contained on the subject here might have been omitted. M. Bichat's opinion is, that the death of the heart, and, indeed, of every other part, arises from the capillaries of the arteries being filled with black blood. We should rather say that this is the necessary consequence of death, induced by suffocation; but this is saying no more than that black or unoxygenated blood is unfit for supporting life, which is universally known. Our author goes further, and asserts that such blood is unfit for the purposes of secretion. Of the contrary of this, however, the secretory part of the liver is a standing proof. Mr. Hunter has also remarked that redness is no proof of vitality in blood, as that colour may be imparted to it in almost any stage by the admission of oxygen in any form, even in its neutralised state of nitrated potash. What is much more to the purpose, he has likewise remarked that the dark modena colour is not a sufficient mark that the blood has lost its vital principle, or its properties necessary for secretion, and even for supporting the
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life and heat of a part. As a proof of this, he remarks, that whatever produces a stagnation of the blood in the living body, or even a very slow motion, will be sufficient to alter its colour, but not its fitness for all the purposes of a vital fluid. (See *Treatise on the Blood*, pages 66, 67, and seq.) These remarks render it unnecessary to take any other notice of this chapter than to regret that the author had not made himself master of Mr. Hunter's experiments, and the legitimate result of them. It may be said that M. Bichat has his experiments also. This is very just. But, though they prove all that he wishes, namely, that the heart does not die; or, as he ought rather to have said, does not necessarily cease to act by the admission of black blood into the left ventricle; yet this proves nothing as to the properties of the blood, so far as connected with its colour.

We are now brought to another highly important enquiry, termed by the author "The influence of the death of the lungs over that of the brain." Presuming, by the arguments of the last chapter, that the death of the heart arises, (or, he here more properly writes, that the movements of the heart are paralysed,) because the fleshy fibres are penetrated with venous blood, he proceeds to show that the same may be referred to the action of the brain. The experiments on this occasion are much more decisive, which we cannot wonder at, because the functions of the brain, when suspended by violence, are not so easily restored. The author injected venous blood from the jugular vein of one animal into the carotids of another, and found the consequence always mortal. The brain, to use his language, died first, consequently the animal life was soon extinguished, and the death of the organic soon followed. These experiments appear to have been all of them judiciously conducted. To satisfy himself that it was not merely the absence of red blood which produced this effect, water was injected, and produced no permanent ill consequences. One elegant experiment was the injection of venous blood oxygenated after it was taken from the body; but the effect was the same as in common black blood. Another experiment is not less worth noticing, as it shows the wish of the author to meet every possible objection, and to vary his proofs in every form.

"From the influence (says he) of the black blood over the heart, the brain, and the rest of the organs, it was my opinion, that persons affected with varicose aneurisms would perish less quickly from asphyxia than others, because the red blood passes into the veins, and traverses the lungs without requiring alteration. Accordingly, it should be capable of keeping up the cerebral action.

“To be assured if this suspicion were well founded, I made a communication between the carotid artery and jugular vein of a dog, by means of a curved tube. The pulsation of the artery was thus communicated to the vein. I afterwards asphyxiated the animal by stopping the trachea; but the phenomena of death were little different from those of common asphyxia.

“We may conclude with certainty, from the various considerations and experiments exposed in the present chapter,

1st. That, where the chemical phenomena of the lungs are interrupted, the black blood acts upon the brain, as it does upon the heart, by penetrating the tissue of that organ, and depriving it of the excitement which is necessary to its action.

“2dly. That its influence is much more rapid upon the first than on the second of these organs.

“3dly. That it is the inequality of such influence which occasions the difference in the cessation of the two lives in the case of asphyxia. The animal life is always annihilated before the organic life.

“We may conceive, from what has been said in this and the preceding chapter, how unfounded are the suspicions of those who have supposed that the brain, after the separation of the head from the body by the guillotine, might live a while and have sensation. The action of this organ is immediately connected with its double excitements—1st, by motion; 2d, by the nature of the blood which it receives. Now, when the interruption of such excitement is sudden, the interruption of every kind of feeling must also be sudden.

“When the chemical functions of the lungs are suspended, the disturbance induced in the functions of the brain has indeed a very considerable influence on the death of the other organs; nevertheless, such disturbance is the beginning of death only in the animal life, and even then is connected with other causes. The organic life ceases from the sole presence of the black blood among the different organs. The death of the brain is only an isolated and partial phenomenon of asphyxia, which does not take place in any particular organ, but in all alike. We shall explain this assertion in the following chapter.”

In the eighth chapter M. Bichat proceeds to consider the influence of death in the lungs over that of the organs in general. Preparatory to this, we have a section to show the phenomena attending the production of black blood when the chemical functions of the lungs are suspended. This commences with a very just observation concerning the uncertainty of such experiments on frogs and other amphibious animals, on account of the slowness of the respiration, and the comparatively small quantity of blood which passes through their lungs. His experiments are, therefore, very properly confined to animals with a double heart, and
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a pulmonary system similar to the human. In these he regrets that for the most part the vessels are less transparent, which considerably increases the difficulty of such examinations as require a precise knowledge of the blood's colour. The plan pursued was similar to what he has represented before, namely, to fix a tube with a stop-cock in the trachea. By these means the life of the animal may be protracted for some time, respiration being interrupted or permitted according to the intention of the experimenter: add to this, various kinds of air may be admitted at different times, and the effects accurately traced. Another part of the experiment consisted in opening a large artery. A small one, it was observed, was not equal to showing the early changes in the colour of the blood, on account of the slow circulation in that series of vessels. To prevent the too sudden flow of blood, the carotid was opened, and a small stop-cock attached to it. Having prepared a dog in this manner, the result of all his experiments were as follows:—1st, that the length of the interval during which the blood retains its red colour, is in direct proportion to the quantity of air contained in the lungs; 2dly, that as long as there remains any quantity, however small, of respirable air in the cells of the lungs, the blood will preserve more or less of its crimson colour; 3dly, that this colour diminishes in proportion as the respirable air diminishes; and 4thly, that the blood is exactly similar to that of the veins, as soon as the whole of the vital air in the extremities of the bronchiæ has been exhausted.

During these examinations, a curious phenomenon struck the author, namely, that, when the stop-cock was shut, if the animal had an opportunity of moving his body so as to agitate his chest, the colour of the blood was longer in becoming black. This he very justly imputes to the circulation of the minutest particles of air in the chest, caused by this agitation; and the consequence of which is, that every such particle of air is taken into the blood. But the most interesting circumstance in the above detail appears to us that it accounts for the perpetual motion, and even attempt to press the chest, which we see in those who are fearful of being suffocated by any obstruction in the trachea. It seems also to show the propriety of a common practice, that of beating against the back of a person under such circumstances; thus exciting a contraction of all the muscles of respiration, as well as those of the abdomen, which must further conduce to this circulation of what air is left in the lungs.

The next experiment, which the former naturally led to,

was an examination of the phenomena of the blood, when the stop-cock was opened, and atmospheric air admitted, after the blood had become black. In all these experiments the author found that he never could restore motion to the heart after it had once ceased from the black blood penetrating its substance.

The author next tried the effect of different kinds of air admitted to the lungs. To accomplish this, he fitted bladders to his tube, and filled them alternately with hydrogen and carbonic acid gas. Under these circumstances it was found that the animal lived longer than when deprived of every means of breathing, which is imputed to his greater capacity of agitating his lungs, and probably few gasses are entirely free from oxygen or atmospheric air. When the bladder was filled with pure oxygen, the blood did not assume a higher colour, but the animal lived longer, the blood becoming black more slowly.

Some experiments follow to show that the black blood will continue to circulate for some time through both series of vessels. This is proved in a variety of ways, but a single observation of the author's shows how little necessity there was for many of his unfeeling experiments. "There are," says he, "few parts where the influx of the black blood is more visible than in the skin: the livid spots, so frequent in dyspnœa, are only the effects of the obstacle it meets in its passage towards the general capillary system, to the organic contractility of which it is not a sufficient excitant." Whatever may be the cause, the effect is certain, that the black blood does arrive at the superficial arteries, and that the cheeks and lips grow first purple and then black, and so continue as long as the blood is not oxygenated through the medium of the lungs. The following observations contain some curious facts, which may lead to conjectures that in some animals, if not in all, the fœtus is fed with venous blood.

"I was desirous of making use of the power which we possess of changing the colour of the blood, for getting some insight into the influence of the circulation of the mother upon that of the fœtus: accordingly, I procured a bitch big with young, and asphyxiated her, by closing a tube adapted to the trachea. About four minutes after she had ceased to breathe, I opened her: the circulation was going on. I then cut into the matrix, and exposed the cord of two or three of the fœtuses. The artery and the vein were both of them full alike of venous blood.

"Had I been able to procure other bitches in a similar state, I should have repeated this experiment in another manner. I should, in the first place, have compared the natural colour of the
vein

rein with that of the artery. In many of the young of the guinea-pig, the difference appeared to be much less than it is in the adult animal. In many circumstances, indeed, I could perceive no difference whatever. Both the arterial and venous blood were equally black, though the respiration of the mother was in no wise impeded by the opening of the belly. Secondly, I should have closed the tube in the trachea, and then have observed whether the change in colour of the umbilical artery of the fœtus (supposing the blood of the artery to be different from that of the vein) were correspondent with that which would inevitably take place in the blood of the mother. Experiments made with a view to these circumstances, and on large animals, might probably throw much light upon the mode of communication between the mother and the fœtus. Observations are also much to be desired with respect to the colour of the blood in the human fœtus, and the cause of its passage from a livid colour to the very marked red which it assumes some little time after birth.

“ I might add a number of examples to these which I have already related of the blackening of the organs by the venous blood. Thus, the kidney of a dog exposed, while the animal is dying of asphyxia, is much more livid than in its natural state; the spleen also and the liver, when divided, emit only black blood, instead of that mixture of red and black blood which is observable, in the section of these organs, upon an animal which breathes freely.

“ But I trust that we have facts enough to establish it as a certainty, 1st, that the black blood, after the interruption of the chemical functions of the lungs, continues for some time to circulate; and 2dly, that it penetrates into the organs, where it replaces the red blood. These circumstances explain the reason why, on opening the body, we always meet with black blood, even in the vessels which are destined for the circulation of arterial blood.

“ In the last moments of existence, of whatever death the individual may have died, we shall always observe the lungs become embarrassed and cease to perform their office, for some time previous to the total suspension of the functions of the heart. The blood makes its circle through the system, after ceasing to receive the influence of the air, and consequently in its venous state: accordingly it must remain so in the organ in every case, although the circulation be much less evident than in asphyxia, for it is in this circumstance that consists the great peculiarity of asphyxia. The following phenomena may now be easily understood.

“ 1st. When the left auricle and ventricle, together with the large divisions of the aorta, on opening the body, are found to contain blood, such blood is always black. The fact is familiar to those who are in the habit of dissecting. In exercising my pupils on the surgical operations, I have always observed, that when the open arteries are not entirely empty, their contents are composed of venous blood.

“2dly. The corpus cavernosum is always gorged with this sort of fluid, whether flaccid, or in a state of erection; for I have seen it in the latter state in two subjects brought to my amphitheatre. One of these men had hanged himself; the other had died of concussion of the brain.

“3dly. The blood which is found in the spleen is never red; but, sometimes on the exterior, and sometimes on the concave, surface of this organ, I have observed spots of a scarlet colour, for which I cannot account.

“4thly. After death, the mucous membranes lose the red colour by which they are characterized during life. They assume a black and livid hue.

“5thly. Blood extravasated in the brain of persons in a state of apoplexy, is almost always found to be black.

“6thly. Sometimes, instead of accumulating inwardly, the blood injects the surface of the body. In such cases, the face, the neck, and shoulders swell, and are infiltrated with blood. I have frequently remarked this sort of phenomenon in the subject, but have never found it coincide with any internal extravasation. The colour of the skin is then of a purple or deep brown, an evident sign of the sort of blood with which it is injected; and is evidently produced by the stagnation of the black blood in the external capillary system, not by the reflux of blood from the veins.”

We cannot help remarking, that every thing important in the latter part of these extracts has been already much better observed by Mr. Hunter, (see his Treatise on the Blood, &c.) who, by a variety of experiments, proved that blood stagnating in an artery, or in any part of the living body, always became black. In the instance above noticed by Bichat, the progress is simple enough. By the mode of death the arteries have been unable to contract, and the blood has remained in them: the same cause has prevented the coagulation of the blood in the heart and larger arteries, and, probably had it been noticed, no stiffening of the body ever took place. All this has been most accurately noticed by our English physiologist, and explained in a most satisfactory manner in his remarks on the recovery of persons apparently drowned.

The chapter before us concludes with some general experiments to prove that the black blood will not support the functions of life. This is already so well understood, that we shall only extract a single passage, which we recommend to the careful attention of some younger experimenters in our own island.

“In general I have had occasion to remark, that during the circulation of the black blood in the arteries, no fluids appear to issue from the different secreting tubes. But I confess that in all these experiments, and in other similar ones which I have made,
the

the animal is too much agitated, and the limits of the experiments too circumscribed, for any thing like a well-founded judgment to be formed on the subject in question. It is chiefly from analogy, then, that I am led to conclude, that the black blood is unfit for the purposes of exhalation and nutrition: such supposition also accords well with divers of the phenomena of asphyxia. 1st. The want of exhalation from the skin during the state of asphyxia, is probably the reason of the phenomena of the animal heat in such sort of death. 2dly. In asphyxiating animals very slowly during digestion, I have uniformly observed, that the bile ducts and duodenum contain a much less quantity of bile than they do at such time when these parts are exposed in the living animal. 3dly. As the blood loses nothing from the exercise of these functions, it must, of course, accumulate in the vessels; and, in fact, it is very fatiguing and unsatisfactory to dissect the bodies of those who have been hanged, or asphyxiated with the vapours of charcoal, from the fluidity and abundance of their blood. But this abundance, perhaps, may depend upon the weakness of the absorbents. In other sorts of death, the absorbents continue for some time to act upon the serous portion of the blood remaining in the vessels. In asphyxia there is neither secretion nor absorption."

This is, at least, a candid confession of the uncertainty which must attend every experiment on living animals. We pass over the succeeding chapter on the influence of the death of the lungs over the general death of the whole body, as containing little more than what is to be met with above.

Some remarks follow on the influence of the death of the brain over that of the lungs. Here we meet with much of what has lately been exhibited in England, and in both cases to very little account. From experiments in which so much violence is done as must be required in order to tie or cut through the cardiac nerve, what conjectures can we form concerning the influence of the nervous system abstracted by reasoning from the mere divesting a part of the nervous influence. The author's conclusions, however, are as candid as can be expected. He shews that the lungs do not cease to act by the direct influence of the cessation of action in the brain. But this is only proved by shewing that the influence of the nerves subservient to the muscles of respiration are not necessary for the continuance of breathing. Nervous influence is extremely uncertain, and sympathies are scarcely less various than anastomosing branches of blood vessels. These experiments, however, will always be interesting; they are good for as much as they prove, and it redounds to the author's credit, that on many occasions he is so cautious in drawing conclusions from them. All he infers is, that "the death of the lungs is occasioned *indirectly* by the

NO. 204. s death

death of the brain." It is painful to be obliged to object to the language of philosophers, but, without greater accuracy in our expressions, to what purpose is all our reasoning. The death of the brain cannot take place without the death of every other part, and our author has only been talking about the cessation of communication. When the head or brain is entirely separated, the other parts die slowly, but not instantly. Need we require a stronger proof of this than the experiments of artificial breathing, so nicely conducted by Mr. Hunter, and since repeated by Mr. Brodie. All these remarks may be extended to the subsequent chapter, "on the influence of the death of the brain over that of the heart;" and the two succeeding chapters, "on the effect of the death of the brain on the other organs and over every part of the body." This last chapter we shall transcribe, because it is short, and because it offers a most lively instance of the importance of distinguishing between death and the cessation of action; the want of which distinction we have so often remarked, and may now conclude with asserting, that it renders the whole work useless excepting as a series of well conducted and faithfully related experiments; which the disciples of a more correct physiologist may turn to good account in their various inquiries.

"Of the Influence of the Death of the Brain over that of the Body in general."

"From the consideration of what has been said in the preceding chapter, nothing can be more easy than to form an accurate idea of the manner in which the phenomena of general death, commencing by the brain, are concatenated. The series is as follows:

"1st, The cerebral action is annihilated. 2dly, There is a sudden cessation of sensation and voluntary motion. 3dly, A simultaneous paralysis of the intercostals and diaphragm. 4thly, An interruption of the mechanical phenomena of respiration and the voice. 5thly, An annihilation of the chemical phenomena of the lungs. 6thly, A passage of black blood into the arteries. 7thly, A slowness of circulation owing to the influx of such blood into the arteries, and the absolute immobility of all the parts, of the intercostals and diaphragm in particular. 8thly, The heart dies and the general circulation ceases. 9thly, The organic life vanishes. 10thly, The animal heat, which is the product of all the functions, disappears. 11thly, The white organs die.

"Though in this kind of death, as well as in the two preceding kinds, the functions are suddenly annihilated; the parts retain, for a certain time, a number of the properties of life. The organic sensibility and contractility, continue for some time, to be manifest in the muscles of the two lives; and in those of the animal

mal life, the susceptibility of being affected by the galvanic fluid is very satisfactorily marked in the muscles of the animal life.

“ This permanence of the organic properties, is nearly the same in every case; the only cause which affects it, is the slowness with which the phenomena of death have succeeded each other. In every case where their duration has been the same, whatever may have been the cause of death, experiments instituted upon these properties, are attended with similar results; for it is evident that concussion of the brain, luxation of the vertebræ, the section of the spinal marrow, apoplexy, compression of the brain, or inflammation, are all of them causes which are attended with a like effect.

“ The same, however, is not the case with respect to the asphyxiæ produced by the different gasses. We have shewn the reason of this in the more or less deleterious nature of the gasses which produce asphyxiæ.

“ The state of the lungs also, is very various in the bodies of persons who have died from lesions of the brain. This organ is sometimes gorged and sometimes almost empty: it shews, however, whether the death of the individual has been sudden or gradual. The same indication may be had from the state of the exterior surfaces.

“ The death, which is the consequence of disease, commences much more rarely in the brain, than in the lungs. Nevertheless, in certain paroxysms of acute fever, the blood is violently carried to the head, and is the occasion of death. The concatenation of its phenomena are then the same as take place in sudden death.

“ There are a great number of other cases besides those of fever, where the commencement of death may be in the brain, though the brain itself may not have been previously affected by the disease. In these cases, the state of the lungs is very various; but little can be learnt from it with respect to the nature of the disease. It is only an indication of the manner in which the functions have been terminated.”

By the third paragraph of this chapter, it evidently appears how much the author was embarrassed for want of a due distinction between a total cessation of action and absolute universal death. What can be more absurd than to talk of *dead parts* retaining the *properties of life!*

An additional note is added, containing M. Bichat's mode of considering the great sympathetic nerve. This we shall transcribe, as an easy illustration of the connection between the neurology of the past and present century.

“ This nerve, says he, is considered as a medullary cord, extending from the head to the sacrum;—in this course it is represented by anatomists, as sending different ramifications to the neck, breast, and abdomen, as having a distribution analogous to that of the nerves of the spine, and as deriving its origin, either from these nerves, or those of the brain. Whatever be the name by which it

is designed, sympathetic, intercostal, or trisplanchnic, the manner of regarding it is invariably the same.

“ But there exists no such nerve as that which is described under these names. That which is taken for a nerve, is nothing more than a series of communications between different nervous centers placed at different distances from each other.

“ These nervous centers are the ganglions. Disseminated in different regions, they have all of them an independent and isolated action. They are, each of them a focus, which sends out in different directions a number of ramifications, which in the several organs to which they are distributed, are the conductors of the irradiations of the focus from whence they escape.—Of these ramifications, there are some which go from one ganglion to another, and as these branches, which unite the ganglions, compose by their aggregate a sort of continuous cord, such cord has been considered as an isolated nerve, but it is no such thing; these branches are nothing more than communications, simple anastomoses, and not a nerve.

“ This will be evident, when it is considered that the communications are frequently interrupted. There are subjects, for example, where a very distinct interspace is found between the pectoral and lumbar portions of that, which is called the great sympathetic; it seems to be divided at this spot. Every anatomist must have remarked, that sometimes a single branch, and sometimes many, pass from one ganglion to another, and this particularly between the last cervical and first dorsal ganglion. Besides, the volume of these branches is singularly various, and, after giving out a number of branches, the sympathetic is larger than ever.

“ These different considerations are a manifest proof that the communicating branches of the ganglions should no more be considered as a continued nerve, than the branches, which pass from each of the cervical, lumbar, and sacral nerves, to those which are immediately above and below them. In fact, notwithstanding these communications, each pair of the latter mentioned nerves is regarded as a separate pair.

“ In like manner each ganglion should be considered separately, and the branches be described which proceed from it.

“ For this reason, continues Bichat, in my descriptions in future, I shall divide the nerves into two great systems; the one emanating from the brain; the other from the ganglions, &c. The first has a single center, the second a number of centers. This manner of considering them, will present them such as they actually are in nature.

What anatomists, for instance, can there be found, who has not been struck with the difference which exists between the nerves of these two systems. Those of the brain are larger, but less numerous;—are whiter, denser, and less subject to variations than the others. On the contrary, the general character of the nerves of the system of the ganglions consists in extreme tenuity, great number, a greyish colour, softness of texture, and great variability.

“ Besides,

“ Besides, this division of the general system of the nerves into two secondary systems, agrees exactly with my division of life. The external functions, sensation, locomotion and the voice, depend on the cerebral system. On the contrary, the greater number of the organs of the internal functions have their nerves, and consequently their principle of action from the ganglions. From the former are derived, the animal sensibility and contractility; where the latter only are found, there are only to be found the organic sensibility and contractility.

“ I have said elsewhere, that the term of this species of sensibility, and that the origin of the corresponding contractility, reside in the organ in which they are observed; but perhaps this term and origin are to be found at a greater distance; perhaps they exist in the ganglion from which the organ receives its nerves, just in the same manner as the brain is the term and origin of the animal sensibility and contractility. If this be the fact, as the ganglions are very numerous, we may easily conceive why the powers of the organic life have not a common center.

“ From all this, it is manifest, that there exists no great sympathetic nerve, &c. &c.”

All the sympathetic properties of this nerve are well described by Winslow. The distinction made by Bichat between a real nerve, and such a substance as is here described, though not entirely new, is well expressed; and, whatever may be the imperfections of the work, it certainly shews genius, industry, and integrity. We may add, that, considering the whole was conducted in a part of the world where Mr. Hunter is so little known, the author is fairly entitled to all the reputation he has acquired.

A General Dispensatory, or Arrangement of the Pharmacopœias of London, Edinburgh, and Dublin; in which the Strength of various Preparations is expressed by Pharmaceutical Numbers; the different Synonyms of each Article, Doses, Qualities, Chemical Numbers, &c. are likewise added: and to the whole are prefixed, some Observations upon the present State of the Nomenclature of Pharmacy. By S. ROOTSEY, F.L.S. Bristol, printed for Baldwin, Cradock, and Co. London. pp. 142.

THIS is one of the most extraordinary little books we ever remember to have met with in the progress of our labours. In the space of about one hundred and fifty pages, more than half of which are devoted to *meteria medica* and index, the author has actually accomplished all that he promises in his long title-page. After this observation, our readers will not expect us to offer an analysis of what is expressed with as much brevity as possible, and perhaps even in fewer words

on some occasions than could be wished. The title itself too shews the intention of every division. We must, therefore, content ourselves with short extracts, to shew the manner in which so much is compressed into so short a compass. The preface will assist us a little, and, as it is short, we shall transcribe the whole,

“ In writing the following work, my principal object was to explain my method of expressing the composition and the strength of various medicinal preparations by means of pharmaceutical numbers; and having been for some time in the constant use of what I conceived to be a more philosophical language of pharmacy, I determined upon uniting both of these ideas in one publication, and printing them in the form of a dispensatory as they now appear.

“ The former presents us advantages so important and so obvious, that I consider no apology can be necessary for my making it known. But, as my own opinion of the necessity of nomenclatural reform may not with my cotemporaries possess any weight, I shall adduce the opinions of some of those philosophers who are justly considered as high authority.

“ I have been stimulated in my undertaking by the advice which the illustrious Bergman once gave to M. de Morveau, ‘ spare no improper names, those who are learned will always be learned, and those who are ignorant will thus learn sooner.’ And I may also urge as relevant to this point the arguments of the unfortunate Lavoisier, whose zeal and freedom in the promotion of science have never been surpassed. ‘ As ideas,’ he justly observes, ‘ are preserved and communicated by means of words, it necessarily follows that we cannot improve the language of any science without at the same time improving the science itself; neither can we on the other hand improve a science without improving the language or nomenclature which belongs to it.’

“ Sir H. Davy, who has devoted much of his attention to this subject, likewise judiciously remarks (p. 46 of his Elem.) that ‘ a theoretical nomenclature is liable to continued alterations; *oxygenated muriatic acid* is as improper a name as *dephlogisticated marine acid*; every school believes itself to be right, and if every school assumes to itself the liberty of altering the names of chemical substances in consequence of new ideas of their composition and decomposition there can be no permanency in the language of the science, it must always be confused and uncertain.’ And in his advertisement he says, ‘ till a more simple system is adopted, innovation will be censured, sometimes perhaps even when it is necessary, and neology generally brought forward as a reproach.’

“ But still more weighty and impartial may appear to some, the arguments of Bacon and Locke, who flourished at an earlier period, and whose luminous writings have served, and should still serve, as a compass to direct our course in the promotion of philosophy. To those who possess the philosophic spirit of the former, or who are acquainted with his works, it will be unnecessary for me here
to

to adduce what he has said 'de Idolis Fori.' And the latter has given us in our vernacular tongue several excellent rules as criteria of the imperfection of any particular language (of pharmacy for instance), which are so much to the present purpose, that I cannot forbear to conclude with the following transcript from his essay upon the Human Understanding.

" 'The ends of language,' he remarks, 'being chiefly these three—1, to make known one man's thoughts or ideas to another; 2, to do it with as much ease and quickness as possible; and 3, to convey the knowledge of things;—language is either abused or deficient when it fails of any of these three.' After treating at some length upon certain abuses, he thus proceeds:

" 'To remedy the defects of speech before-mentioned in some degree, and to prevent the inconveniences that follow from them, I imagine the observation of these following rules may be of use. 1. A man should take care to use no word without a signification, no name without an idea for which he makes it stand. 2. The ideas he annexes to his words, if they be simple, must be clear and distinct; and, if complex, determinate. 3. Care must be taken to apply words as near as may be to such ideas as common use has annexed them. 4. Because men, in the improvement of their knowledge, come to have ideas different from the vulgar and ordinary received ones, for which they must either make new words, or else use old ones in a new signification; therefore it is sometimes necessary, for the ascertaining the signification of words, to declare their meaning, where either common use has left it uncertain and loose, or where the term, being material, is liable to doubtfulness or mistake, which may be done by synonyms, by exhibition, by definitions, by drawings, and by adhering to one signification.' These remedies, he continues, are necessary to the improvement of philosophy; and 'though the market and exchange must be left to their own ways of talking, and gossipings must not be robbed of their ancient privilege; though the schools and men of argument would, perhaps, take it amiss to have any thing offered to abate the length or lessen the number of their disputes; yet those who pretend seriously to search after or maintain truth, should think themselves obliged to study how they might deliver themselves without doubtfulness or equivocation.' 'For he that uses words without any clear and steady meaning, only leads himself and others into errors; and, if he does it designedly, he ought to be looked on as an enemy to truth and knowledge.'"

Perhaps the author's having hit upon our favourite topic, and even concluded with a strong expression in favour of accurate language, may have induced for him a sympathy which may betray us into some partiality. This we trust, however, will be a venial offence. The following are his remarks on nomenclature, and his rules of etymology.

" **LAWs OF NOMENCLATURE**, which no author is at liberty to supersede,

supersede, and which it is the duty of critics to see enforced. These laws are scattered over the writings of various authors upon language, and I have endeavoured to collect those which were necessary to my purpose. Linnæus, in his different works, has laid down many rules, so excellent, that as soon as they were promulgated they were generally embraced, and the impulse which was given to natural history by his writings will make his name eternally dear to its votaries. In the nomenclature of inorganic substances, the proposals of the French chemists, Lavoisier and others, have met with great approbation. But the discoveries which have been the consequence of nomenclatural reform, have rendered some changes necessary.

“The language of science, unfortunately, is not calculated to be the language of business; and from the length of the names of organic substances, and uncertainty of those of inorganic, neither have been generally adopted in pharmacy, nor has any one succeeded in giving commercial names that have been universally approved of. Notwithstanding this, much has been written upon the subject, but it has commonly been to point out a few errors, and not to establish the whole upon a grand and lasting foundation. Finding, in the nomenclature of the three British pharmacopœias, important differences in many names, such as chamomile, blistering fly, &c. I found myself obliged to give my reasons for selecting those which I have preferred; and the manner in which I have executed this task will, I hope, exempt me from censure, considering that it is the duty of authors to use those names which they feel to be the most proper and the most classical. In doing this I have proceeded with caution, and have arranged the names of species according to my view of their classicality and propriety, by which it will appear, that my proposed alterations extend only to names indubitably awkward, uncommercial, or unclassical. It is certainly desirable that the language of pharmacy should be classical; and there are those who, ‘in defiance of all undue authority,’ will ever oppose the depravity and barbarism into which we are at present plunged, and which must ultimately be extirpated, so that the taste of the last age will be succeeded by another less corrupt.

“LAW I.—*When a name is once attached to a single species, it must not be given to another, except as an epithet. In other words, No name ought to be rendered equivocal, that is not so already.*

“LAW II.—*When a name, usually considered as generic, is used specially, it must be understood as implying the original species, if it can be satisfactorily ascertained, and if not contrary to the generally-received opinion. It will also be necessary for the author who uses it in that sense to give some advertisement of it.*

“LAW III.—*When a new species is introduced into commerce, it must have a new name of one word as pure as the Linnæan genera.*

“LAW

"**LAW IV.**—Names must be as classical as possible, and it is the duty of an author to choose and to adopt from amongst the synonyms of a species the best name with which he is acquainted."

"**RULES OF ETYMOLOGY.**—I. The character by which a species is distinguished, such as its resemblance to something else, its quality or property, its colour, its use, or its native situation when constant, suggest the most appropriate names, as *Pterocarpus*, *Chenopodium*, *Dulcamara*, *Glycyrrhiza*, *Erythrodanum*, *Pyrophorus*, *Origanum*, *Cydonia*.

"2. New names must always be of the second quality if possible, but never so bad as the sixth. If of the first quality, they are destitute of euphony.

"3. Modern writers have taken the liberty of naming species from their discoverers, as *Spigelia* and *Quassia*, but such as *Geoffroya*, *Witherites*, *Swietenia*, *Kraschennikofia*, &c. are, in my opinion, rather too incongruous.

"4. Names in point of orthography and etymology must not be contrary to analogy, as *Barytes* for *Barites*, *Ipecacuanha* for *Ipecacuania*, &c.

"5. Names must not be too long nor inappropriate, as *Hypophyllocarpodendron*, *Spermaceti*, *Pulvis cretæ compositus cum opio*, for *Opium cretaceum compositum*.

"6. The solution of an inorganic or chemical substance, including oils, essences, soaps, camphor, and the like, in a menstruum, may either receive a name from both, that of the solvend being in the genitive case, as *Aqua calcis*, lime-water; or the solvend may give an epithet to the menstruum, for salt water or solution of salt is rendered into Latin by *Aqua salina* probably better than by *Aqua salis*.

"7. If we suppose that the common names of salts are of this description, the acids may very properly be called *Nitrate*, *Oxalate*, &c.

"8. All organic preparations are to be named in the same manner as inorganic, except *Decoctions*, *Infusions*, *Liquors*, *Elixirs*, and *Tinctures*.

"9. In Pharmacy, water impregnated with any air or gas may take the name of that air or gas, as *Murias*, &c.

"10. When two or more articles are dissolved in a menstruum, the basis must be in the genitive case, and the other must give an epithet, as *Infusum sennæ tartarizatum*, *Tinctura cinchonæ composita*. And, when a name contains no epithet, it must be considered as simple: for instance, *Tinctura cardamomi*, &c."

A section on Definition follows, replete with method and accuracy; some remarks on *Icons*, referring to the descriptions, and where they are to be met with, the plates of writers on natural history; *Synonymy*.

The second chapter is inscribed *Statics*, and comprehends a correct and classical view of weights and measures. This is particularly useful, on account of the facility and brevity

with which the three Pharmacopœias are connected. Either, however, we have overlooked the passage, or the author has omitted the thermometrical degrees in speaking of the cubical measures of liquids. This may be thought of less consequence, as all the parts must be similar to the whole; but still there seems to us the want of a standard.

Classification next attracts our attention. The two first divisions are zoology and botany; the third chemistry. In the progress of the work, the author shows ample cause for this last division, and the various subdivisions into which it is formed. In zoology, he recommends Turton and Bingley as the most convenient, though not complete, writers on those subjects. In botany, Sir J. E. Smith and Galpine. We think he might have stopt here; but in the space of two or three pages, he attempts an analysis of the Linnæan system. This is enough to show how familiar the author is with the subject, but can hardly be expected to satisfy a tyro. Chemistry comprehends chemical numbers,—a very ingenious and not less perspicuous little abstract of which is given; chemical attraction, with an illustrative table; specific gravities [in this place the author has fixed the thermometric point]; pharmaceutic numbers, which, being connected with the index, we shall transcribe.

“ In considering the proportion which the solvend bears to the menstruum, I constantly take the solvend for unity, and the number for the menstruum I affix to the preparation. Thus, in preparing Tincture of Squills, 4 ounces are added to a quart, or 32 ounces of proof spirit, which being 8 times as much, I annex the number 8 to that preparation. Again, the Edinburgh College direct Unguentum Cerussæ to be prepared by mixing one part ceruse with 5 of simple ointment, the number attached to that article must be therefore 5. Thus it is evident that this plan, while it supersedes simple formulas, answer the purposes of the table appended to the Pharmacopœias. For, if we turn to opium, we shall find one grain united to as many grains of other substances as the number indicates.

“ This invention may be applied to the construction of a

SYNOPTICAL PHARMACOPŒIA,

which, from its smallness, may very conveniently be suspended in a library, dispensary, or shop; for which purpose, two copies will be given with each one of this work. This table will very much assist the memory in retaining the composition of medicines, and I have myself found it of very extensive service for some time past.”

This division closes with a very useful contrivance for an easy reference to doses; and the chapter concludes with an explanation of the signs by which the authorities are marked in the different indexes.

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The last chapter is on manipulation, and contains an useful little compendium. The materia medica follows, first alphabetically arranged, and afterwards remedially, in the manner of Dr. Cullen. The first of these is very copious, and requires a great deal of attention before it can be well understood. It is indeed connected with almost every other part of the book, both preceding and following it. When the reader has made himself master of it, he will find it extremely convenient on every occasion on which he wishes for information.

A list follows of those articles of materia medica which are usually imported, and of the places from which they are brought. Lastly a copious index and a synoptic pharmacopœia.

Such are the contents of a work new in its kind, which must have cost the writer infinite trouble; and for which we, in common with the rest of his readers, are ready to acknowledge our obligations.

Edinburgh Medical and Surgical Journal, No. XLV. for
January, 1816.

Art. I.—*Case of Carotid Aneurism.* By Mr. THOMAS DUNCAN.

THIS case is extremely interesting, and very candidly related. We cannot blame the author for not attempting an operation which he admits he ought to have performed, and from which he was only withheld by want of courage, and of knowing what had been accomplished in Europe. The event was as might be expected, but earlier than in aneurisms which occur on the extremities. This may be accounted for by the proximity of the heart, and the want of any resistance to the tumour from a neighbouring bone. The case seems to have occurred in the West Indies, but no date is affixed. The subject was a negro.

Art. II.—*Case of singular Malformation of the Heart, with Remarks on Deranged Circulation.* By JAMES THOMSON, M.D. Edinburgh.

This case, and the reflections of the author, are important. We shall transcribe the first, and give the substance of the latter, with our own remarks.

“ J. R. ætat. 46. The account this patient gave of her complaints was, that till the last summer she had enjoyed tolerably good health, when she remarked her lips and mouth to turn of a dark colour; her health was not materially altered. She remained much in the same state till three months ago. She then began to complain of her breathing, and the blueness became much more general;

general; but it is only during the last three weeks that she has been forced to keep her bed. During the time I saw her, which was only three days before her death, she had all the appearance of a person labouring under the severest symptoms of hydrothorax. The pulse was not very much altered, rather feeble; she could only endure the half erect posture, and breathed with very great difficulty. She was ordered to be let blood, and lost nearly eight ounces. Felt no relief, and died in sixteen hours after.

“*Dissection.—External appearances.* Not much emaciation; blue colour more faint than during life; the chest sounded ill when struck, especially the left side; and there was a peculiar form of the thorax, very frequent in cases of diseased heart.

“*Thorax.* Pericardium contained six ounces of a clear fluid; the right cavities of the heart enormously distended with black blood; the right auricle thickened and enlarged in a small degree. In the seat of the foramen ovale, there was a circular aperture sufficient to admit the points of *the four fingers* to a considerable extent; the pillars of the foramen ovale were not distinct. The direction of the aperture was not such as could warrant one in saying, that it was more particularly directed from one side or another. The right ventricle was considerably enlarged and thickened; left auricle rather small; left ventricle natural, but, as usual, contracted; great quantity of blood at the commencement of the aorta; the ductus arteriosus was quite impervious. The lungs were adhering in most places, and their substance was dark-coloured, and full of blood and air; the left lobe at the inferior part contained some extravasated blood. The veins were much distended with blood, particularly those of the liver. The trachea at the bifurcation was much reddened; the stomach internally had a red spotted appearance; the inner surface of the intestines was of a very dark colour throughout.

“The case which I have now detailed is interesting, both from the *unusual* appearance presented on dissection, and also from the speculations it gives rise to, as tending to illustrate some obscure parts of the circulation.

“The first question that naturally suggests itself is, whether this was an original malformation, or a change of structure arising at an after period of life? If it proves to be a malformation, we must show how so singular a deviation could have existed for so long a period without inducing more serious derangement in the system of circulation.

“If we view it as an alteration in structure occurring after birth, we must point out the causes and the time of its formation. After considering the subject attentively, the following circumstances have induced me to refer it to an original malformation.

“1st, The appearance of the aperture, the edges of which were rounded and thickened, indicated that it was not of recent formation; as also, that it was not the foramen ovale merely remaining open, for, in that case, there should have been the two pillars as they

they are called, and the aperture should have been of an elliptical form, an appearance which it acquires as the child advances nearer to maturity.

"2dly, At birth, and for some time after, a passage must remain in the seat of the foramen ovale, and ductus arteriosus; yet no unusual appearance takes place, unless some cause deranging the circulation occurs, and then, as we shall afterwards endeavour to show, the foetal circulation is often again in part renewed.

"The instances in which the foramen ovale remains open are so common, that few apply them to explain the cause of any symptom during life; for at all ages the aperture occurs of various sizes, and its being always unlooked for, sufficiently shows the importance we should attach to it.

"3dly, Bichat injected two different kinds of fluids into the auricles at the same time, and found that they did not intermix, though the foramen ovale was open. This celebrated anatomist seems to think that it is impossible for any fluid to pass from the one auricle into the other, however large the aperture may be.

"4thly, In cases where a communication is found between the ventricles, a striking analogy is observed with the one I have just related. Little derangement happens, as long as both ventricles continue to send out the same quantity of blood; but the moment this relation is lost, the dreadful effects are easily distinguished.

"5thly, Cases of an opening in the septum of the auricles are extremely rare. I find one, however, mentioned by Corvisart. It is particularly detailed in Observation 44, page 279, of that elegant work. The patient was 57 years of age before he complained, and that was seemingly induced by repeated accidents. The right auricle was extremely dilated, and an opening of more than an inch in diameter was found in the septum of the auricles.

"These facts may persuade most of the accuracy of the opinion which considers the aperture as an original malformation. It is certainly more consistent with our present knowledge to view it as such, than to refer it to ulceration or rupture, induced by a violent fit of coughing.

"We must, however, prove how this patient enjoyed her health for so long a period, before admitting implicitly the above statement as a correct view of the subject. We shall therefore endeavour to show that part of the foetal structure remaining in adult life, has little influence in deranging the health, unless some additional cause arises.

"In examining the cases mentioned by authors who treat of diseases of the heart, we find sufficient proof to convince us, that, on dissection, many appearances of altered structure have presented themselves, which, from the state of symptoms during life, we never should have suspected. In these cases, little variation will be found to have taken place in the relative size of the cavities of the heart.

"We

“ We have already noticed, that the foramen ovale is found open so frequently, that anatomists look on it as a matter of little consequence. The observation only holds true, however, where the relative size of the auricles remain the same; for the moment the right increases in size or strength, or any other derangement of the lesser circulation is added, the most distressing symptoms supervene.

“ The explanation seems to be this: As long as both auricles receive and discharge the same relative quantity of blood, no mixture to any extent can take place, even although the foramen ovale be very large; but, when the right becomes rather smaller, or of increased strength, or the left is seized with what is called passive aneurism, a portion of blood must go through to support the equilibrium. If the tricuspid valve, or the lungs themselves, become diseased, the same changes must happen.

“ The above reasoning applies equally to cases where the septum of the ventricles is perforated. It seems probable, that, in our patient, the little variation that was found in the relative size of the heart was the cause of her surviving so long, and that death was produced from the adhesions of the lungs, and the increased strength of the right auricle: in the case also mentioned by Corvisart, the increased size of the right auricle, and other disease of the lesser circulation, were in all probability the causes of death.”

This description, though apparently minute, is, we confess, not sufficiently so for us. This is not intended as a reproach to the author, because we are willing to admit that no one is sufficiently aware of inquiries which may be made by others on a subject familiar to himself. By the words “ the lungs were adhering in most places,” are we to understand that they merely adhered to the pleura, or that adhesion had taken place in the air-cells? If only the former, unless the adhesion were greater than the author’s language would lead us to suppose, we cannot consider the cause equal to the effect; that is, we cannot consider the resistance the blood would meet with in its passage through the lungs as sufficient to cause any important change in the actions of the heart, nor even sufficient to produce the very great difficulty in breathing, or necessity of a constantly erect posture. We therefore suspect, that, besides the adhesions to the pleura, the lungs were consolidated by the adhesion of the air-cells, so that the blood could circulate with difficulty, and would be imperfectly oxygenated.

Let us now pursue our author’s further arguments that “ the foramen remaining open in advanced life, is admitted to be an unimportant matter by the ablest physiologists.” This is one of the many subjects in which J. Hunter and Bichat have expressed themselves almost in the same words.

But Dr. Thomson's opinion is, that though, as long as the two auricles receive and discharge the same quantity of blood, this remaining aperture may be unimportant, yet the moment that equality ceases, the danger commences. We should rather say that the danger arises from this irregularity in the powers and capacities of the two auricles, or, perhaps, in the cause of that irregularity, than from the opening of the foramen. But a case of Dr. Marcet's,* to which our author refers, shows that this blue complexion may occur, not only without any disease in the heart, but without any remaining opening of the foramen. It is certainly highly probable, that, under certain circumstances of dyspnoea, the foramen, if slightly closed, may be opened afresh; but a cause sufficient to produce such an effect would, in our opinion, be sufficient to produce the blue complexion, with all the other fatal symptoms attending these unhappy cases.

Two instances of children follow, in one of which dissection proved that the foramen was open, and another which recovered. In the former the lungs were so much diseased as to account for the state of the heart on the principle we have advanced. In the other, the impediment to the circulation through the lungs being slighter, was probably overcome, and the foramen, being no longer necessary, soon closed. Some cases are quoted from other authors, in which the blueness was universal, yet the lungs only in fault; and the paper closes with some pathological conjectures, which it is not necessary for us to notice.

Art. III.—*Case of the Effects of Tobacco.* Communicated by
MARSHALL HALL, M.D. &c.

In this city of London we are acquainted with so many old smokers who value themselves on never spitting whilst they smoke tobacco, that we cannot help doubting the inference drawn in the case before us. As the patient was relieved by bleeding and purging, we should impute the whole to apoplexy, a disease not at all uncommon among smokers and porter drinkers.

“Indeed the symptoms (says the author of the paper) of the case were sufficiently peculiar: Syncope, succeeded by nausea and vomiting, and subsequently by violent pain and affection of the head; coma, and stertorous breathing, without paralysis, and with little affection of the pulse; the tendency to dosing and to syncope on a change of posture, or on any exertion; the languor of the circulation observed in the extremities: all these circumstances, taken together, seem to characterize decidedly the effects of tobacco, and to distinguish them from any other affection. It may

* See our Journal, vol. xiv. p. 471.

be useful, however, on similar occasions, to recall to mind, that apoplexy, an injury of the head, a fit of epilepsy, a state of deep intoxication, the effects of other narcotics, asphyxia, syncope, &c. are all affections which, with the one recorded in this case, require to be accurately distinguished from each other.

“The treatment employed by the surgeon in this case seems to have been very efficacious. Perhaps the opening of the jugular vein would have been equally so, as the lividity seemed to indicate a redundancy of venous blood. But in spasmodic affections, the temporal artery is more accessible, and more promptly and more conveniently opened. The particular treatment here mentioned was followed in the later periods of the complaint, by such remedies as the symptoms seemed to require, and especially by repeated doses of calomel.”

The discrimination here recommended is important, and therefore we have taken the liberty of making the above remark.

Art. IV.—*Observations on the Plague at Malta.* By WILLIAM STAFFORD, Surgeon, 1st, late the 3d, Garrison Battalion.

These observations are principally directed to the cure of that formidable disease. Mercury was the remedy chiefly relied on, with bark and wine in the more advanced stage. We respect the honesty and years of Mr. Stafford, and think it right, before we say more, to put in our claim to the same approach toward Nestorean prudence. But, as Sydenham lived to be older than either of us, we would remind our readers of his adage on the small-pox, namely, that there are cases which the physician cannot cure, and others which the nurses cannot kill.

A more important consideration is the means of prevention. On this Mr. S., with becoming modesty, gives great credit to the commanding officer.

“In detailing (says he) these cases, my intention was merely to relate facts, my mode of treatment, and the results; avoiding all theory or reasonings about it, knowing, that if you deem this paper of sufficient importance to merit a place in your valuable Journal, it will call the attention of men of the first abilities, who will do the subject more justice than I can. I am near sixty, and it is long since I was at school. This regiment was twice infected with plague; and, though it appeared in every company in it, you will be surprised to hear, that we lost on the whole only eleven men. It is not my intention to claim any merit on this account. That is entirely due to the commanding officer, Major C. Bayley, to whose almost sleepless zeal and attention for nine months it is owing that our loss was so small; to his wise regulations, and constant superintendance, the safety of a great part of the battalion must be owing.”

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Let us now see what was the consequence where Major C. Bayley could not extend his cautions. In doing this, we shall return to that part of the history of each case which relates to such intercourse between the sick and the healthy as might lead to a communication of the disease.

“My battalion (says Mr. S.) was quartered at Floriana, a fortified outwork to the city of Valetta. The works are somewhat in the form of a half-moon, and are between two and three miles round. I imagine, at the commencement of the disease, it contained about 6000 souls, of which about 1600 died. Whole streets were depopulated, and very few houses escaped. Under my quarters, three separate families lived, and had no communication with each other, and some died out of each. Floriana is the only outlet from Valetta to the country. All the people that died in the city, all the sick sent into quarantine or observation, infected clothes, &c.—the dead carts, sometimes so full that the covers could not be shut down, and, from the pressure of the bodies on each other, the carts might be traced by the quantity of pest-matter running from them:—all the pest-hospitals for the Maltese, places of quarantine and observation, were in the ditches of Floriana, under the eyes of our sentries, who frequently, at day-break, saw heaps lying on each other dead; and, during the whole of the day, numbers under the severe and last agonies of the disease.

“I have been thus particular in describing the situation of Floriana, where ours was the only regiment to do every part of the military duty, by guarding all these extensive works. The officers and men had, of course, to traverse the town in every direction. I likewise wish to show how next to impossible it was that we could escape, as some severe observations have been made for our suffering it to appear among us. All the regiments quartered in Valetta were lodged in palaces. The door being locked, they might be supposed to be secure, yet some of them suffered, and one of them received the infection first.”

We wish the reader who has not visited these kind of places to understand that by “families living under the author’s quarters” is meant, that the basement story was occupied by families, whilst the rest of the palace formed the quarters for the military. Such was probably the case with the whole garrison of Valetta, who, we are informed, were all lodged in palaces.

The first case does not appear to have left the quarters; yet there is no suspicion annexed to the account that he spread the infection, though he continued ill from the 14th to the 18th, and was not discharged for duty till the 2d of the following month.

The second case is suspected to have happened “from some defect in the patient’s shoe, in consequence of which

some pest dust had got in." This is, however, only a conjecture.

The fourth case arose without any apparent cause, and though the subject continued with the regiment four days, it does not appear to have infected any person.

The fifth was of a man who slept with a woman during his complaint.

"This woman was sent into quarantine, but never betrayed the smallest symptom of the complaint.

"I was informed that a man-servant of Captain Chilcott, R. N., passed a night in a house of ill-fame. In a very short time after, a bubo appeared in the inferior gland of the groin, which, on inspection, was found to be plague. He was sent to the hospital, and died very soon after. I understand that this man did the usual duty of the house, and actually nursed one of the children a short time before he was sent to the hospital. The inspector of hospitals informed me, that a young lady in his neighbourhood married during the plague, and died soon after, and no other of the family. Sometime early in October, a serjeant of the 14th regiment, who acted as blacksmith to the officers of the garrison, had his forge in Floriana, and had one of our men to assist him. The serjeant being a very useful man, and excused all other duty, was allowed to live as he pleased, and to go when and where he pleased. He was very fond of liquor and women. It is known he frequently went into Valetta on pretences of business, and probably went into improper houses. He applied to a surgeon for relief for a tumour in the groin. It was examined, and supposed to be venereal, and intended to be treated as such, the man having no other apparent complaint at the time. On his being visited next morning, his case was found to be plague. He died the same evening. When inspected in the morning, the man belonging to our battalion was sleeping in the same bed with him. On examining the dead body, it was found to be a case of the most malignant kind, with large broad livid spots, and numberless petechiæ all over the trunk and thighs. As there was no doubt that our man had been in close contact with him, as they had constantly slept together, handled the same working tools, eating and drinking together, on placing him in observation, I was determined not to wait for the appearance of the symptoms, but try if I could prevent it. He was several times purged with calomel, and took small doses night and morning, until his mouth was sore, which happened soon. The same was continued. His mouth kept tender during the whole of his quarantine, 41 days. He had no complaint during the time, except once or twice a slight head-ach, which was always removed by a calomel purge. He had a generous diet all the time, and generally a pint of wine a-day."

We have been thus particular as to the progress of the supposed infection, and shall only say, that, if the disease was infectious,

infectious, it was not in the same manner as the small-pox. There is no reason, to suppose that the preventive means adopted for the last subject were at all necessary or of use, if we may judge by the previous history in the same paragraph. In fine, we suspect that none but stragglers in this garrison were infected, and that, whatever intercourse took place, the disease was never communicated.

(To be continued.)

MEDICAL AND PHILOSOPHICAL INTELLIGENCE.

To the Editors of the London Medical and Physical Journal.

GENTLEMEN,

BELIEVING that it may be interesting to many of your readers, to see a correct statement of what passed on the 8th of December last, when the trial of the indictment of the King against Taunton was called on, I inclose a transcript from the short-hand writer's notes. I shall forbear making any observations on the manner of detailing this transaction in your last Number, and content myself with simply stating, that the account there given is extremely inaccurate. I am,

*Sun-court, Cornhill;
January 19, 1816.*

Your obedient servant,
CHARLES MURRAY.

*Court of King's Bench,
Friday, December 8, 1815.*

THE KING v. TAUNTON.

The list of the special jury were called, and only ten appeared.

Mr. Attorney-general. — "Your lordship will, I am sure, excuse my saying a word or two upon the course we are about to pursue. Your lordship has probably had an opportunity of casting your eye over the indictment, and of observing what is the subject of the prosecution. Those who think it is of infinite importance, that the plague of the small-pox should not infest the metropolis, as far as human beings can prevent it, have instituted this proceeding, in consequence of its having been alledged (and I will say no more at present than that it is alledged) that the defendant has been in the practice of bringing great numbers of persons to his house for the purpose of being inoculated, and of causing them to pass through the streets in all directions, and in every stage of the disease. My learned friend, Mr. Pollock, is for the defendant, and he states, that a learned friend of ours, his senior, is not here. Of that, I would say, that the absence of any gentleman while Mr. Pollock was here, was of no importance to the defendant. But he says that which is certainly much more important, that, since this prosecution, the defendant has given directions that this shall be prevented; and that being stated, I have no objection that this shall stand over, and I consent to its standing over, in the confidence that those who advise the defendant will enforce upon him

the importance of that direction, which it is stated he has given, being attended to. God forbid that those who have the small-pox should not be attended in their own houses by any person they choose, but they must not be carried about the streets to the destruction of others. My friend will communicate to his client what has passed, and the understanding upon which this is allowed to stand over."

Mr. Justice Bayley.—"I hope that it is sufficiently notorious, that the causing persons to pass through the streets who may have that disorder upon them, although they are going for medical advice to some person in whom they have confidence, is an indictable offence; and, if that person, instead of attending them at their own houses as he might do, chooses to direct that they shall, from time to time, be brought or come to him, there is no question that he is liable to an indictment."

Mr. Attorney-general.—"The few sentences your lordship has pronounced now, are of the last importance to the community."

Mr. Pollock.—"Will your lordship excuse my stating, that as soon as it was known, from the judgment of the court in a former case, that this could not be done at the defendant's house, every time a patient has since attended him for the purpose of being inoculated, not only verbal directions, but likewise written directions have been given to the mother or the nurse, to take this child home, and not bring it out again till the disorder is removed; and by no means allow it to be with other children, so as to occasion infection."

Mr. Justice Bayley.—"And, in addition to that, Mr. Taunton should intimate, that he is ready to attend those persons at their own houses."

Mr. Pollock.—"I understand that is part of the notice, that he is willing to attend such patients at their own houses."

[We are much obliged to Mr. Murray for the above communication; by which it appears, that the law does not interfere with inoculation of small-pox, but with the exposure of patients under the disease, whether casually received or by inoculation. We do not see wherein the difference exists between our former report and the present, but a wish to shew our impartiality has induced us to insert the above.]

The following are the principal papers we have been able to select from the German and Flemish journals.

Dr. KRAFT, at Runkei on the Lahn, describes a very singular appearance he beheld in the typhus castrensis, viz. *a blue nose*: this appearance occurs but seldom; and *Dr. Kraft* affirms, that amongst 300 of his private patients labouring under the typhus in 1813, neither he nor any of his colleagues had observed it; and in the Military Hospital at Runkel, amongst at least 700 patients, only seven or eight cases occurred.

In the Prussian Military Hospital, he saw two patients in whom
this

this singular appearance took place, and made the following observations on it. Some days after they had felt themselves ill, when loss of appetite, chilliness, vertigo, head-ach, and all the other symptoms of the typhus, had taken place, the tip of the nose began to turn red. The redness, about the same colour as in scarlatina, spread itself in the space of ten or twelve hours over the whole nose, assuming a paler tint on the cheeks and upper lip. The nose began to swell; the red colour became darker; a stronger fever, with all the symptoms of a more violent typhus, took place, succeeded by somnolency, and a sudden decline of the vital powers; the colour of the nose turned violet, and assumed at last a lead colour; the patient became insensible; and, though every possible exertion had been made for saving them, within about twenty-four or thirty-six hours from the beginning redness of the nose, inevitable death closed the catastrophe.

In one, the red colour of the nose gradually spread over both cheeks; the chin, throat, and breast down to the navel, then turned violet, and at last assumed the livid colour of mortification. According to the observations of the military physicians, there is no doubt that these patients afflicted with the red nose spread the miasma. The explanation of this appearance is difficult; but, with regard to the prognosis, the inference may with certainty be deduced.

PROFESSOR LOEBEL'S *Observations upon the Benefit of Insolation in different Complaints, particularly in Cases of the Amaurosis.*—The physicians of former times cured different complaints by exposing the suffering parts to the action of the sun-beams, and practised this method particularly in disorders of the lymphatic system, such as different kinds of dropsy, and the gout. Professor Loebel has proved, in a dissertation, that insolation is with injustice neglected at present. According to his opinion, the effects of insolation upon the suffering organs are the following:

1. The warmth of the sun increases the activity of the lymphatic system, and of the vessels.
2. By the influx of light, the vital activity is roused and heightened both in the afflicted part and the whole body.
3. The development of oxygen, or vital air, caused by the action of the sun, also operates chemically upon the organization.

For these reasons, M. Loebel recommends insolation in the following cases:

1. In chronic anasarca, not founded upon any organic defect, where the extremities feel cold, and a general weakness and torpor appears in the lymphatic system, particularly in metastatic exanthema, after repelling the tinea capitis, the itch, or herpes, or after an ill-managed scarlatina.

2. In the chronic gout, particularly when all the organs are suffering by its long duration, when contractions, tumores ossium, and insupportable pains prevail, also where the gout leaves a partial palsy.

3. In

3. In all complaints attacking the tractus intestinorum, such as chronic spasms of the stomach, where weakness in the nervous system prevails, and in chronic diarrhœa; as also in the fluxus cœliacus and hepaticus, in chronic catarrh and chronic erysipelas.

4. In different forms of venereal complaints, in particular during the use of mercurials, when it serves to heighten and increase the effect upon the lymphatic system and the skin.

5. In diseases of the bones, tumores ossium, and in general or partial caries.

6. In subjects weakened by immoderate venery.

7. In nervous apoplexy, and palsy of single parts.

8. In the nervous gout of the head.

9. Against aphonic, when the incapacity of speaking is transitory, and not occasioned by the destruction of the organs.

10. In the marasmus senilis.

11. In the palsy of the lower extremities, particularly where the nervi crurales have suffered, and a state of inactivity and want of irritability prevails in them.

12. In amaurosis, from idiopathic causes, and from weakness of the retina or ciliary nerves, or when a palsied state of the optic nerve produces this complaint, or when it arises from a metastasis of gouty, venereal, or itchy matter.

Contra indications of the method of cure are the following :

a. In all diseases where an exalted irritability or plethora prevails, insolation must not be applied.

b. Neither in acute violent inflammations, general nor local; in affections of the lungs, which shew a disposition to inflammations, spitting of blood, or congestion.

c. Apoplexy, the nature of which consists in a congestion.

d. In hæmorrhages both of the active and passive kind, insolation is improper.

e. Insolation must absolutely be refrained from where the patient shews an idiosyncrasy or apathy against this method of cure, or by persons whose nerves, when in health, were found too sensible of the action of light or sun-beams, and who felt head-ach or vertigo on the slightest action of sun-shine.

Manner of Application.—1. This method of cure must not be applied in stormy or moist weather, or when east, west, and north winds prevail. Insolation requires calm days.

2. The patient during insolation must not sit or lie on the bare ground, but a leather skin must be placed under him, as was the custom of the Greek and Roman physicians.

3. Insolation must neither be applied on an empty stomach, nor directly after dinner; but, if the complaint requires the application during noon-tide, it is advisable to let the patient previously take a little food.

4. If insolation is to be performed on single suffering parts, the rest of the body must be covered with a white linen cloth, and only that part exposed on which the sun-beams are to act.

5. Insolation

5. Insolation must be adapted to the different cases: in one case half an hour or an hour is requisite, in others a period of some hours. Again, in some cases the rays of the morning sun, in others the most powerful rays of noon or afternoon, are necessary, according to circumstances and individuality. In complaints of the eyes, viz. in the amaurosis, Mr. Loebel advises to shut the eyelids, and to let the sun-beams act through half convex glass, placed upon the eyes thus shut.

Mr. Loebel gives the following directions for a particular machine which he calls a sun-bath. It consists of a box entirely constructed of panes of glass, about three feet long, nearly in the form of a hot-bed, the bottom to be of wood covered with sole-leather, the sides about three or four feet in height of panes of glass. In the upper part, an opening for the patient to put his head through; on one side a glass door by which to enter; and the bottom must be covered with very dry sand, or kitchen salt, about a quarter of a yard high. This box must then be exposed to the sun, so that the beams, thus more concentrated by the panes of glass, may produce a stronger effect upon the subject enclosed, for which reason there ought also to be small glass doors in the machine, that the degrees of heat may either be increased or lessened. The preference of this sun-bath to the usual method of insolation amongst the ancients consists in the more effectual application of the sun-beams upon the naked body, in proportion to the complaint, and according to the will of the physician; and, in case the perspiration of the patient takes place, the risk of catching cold is thereby absolutely prevented. The effect of the heat must also be far more powerful and concentrated than can be the case by pursuing the ancient method. Besides the ancient method cannot always be applied either in England or the northern parts of Germany, without risk to the patient, on account of the instability of the atmosphere; but the sun-bath recommended here may, with proper precaution, be applied more frequently and with greater confidence.

6. Finally, insolation must not be applied alone, but combined with those remedies adapted and prescribed for every form of sickness, as many cases require not only inward medicines, but also outward applications, such as frictions, &c.

Professor Loebel communicates the following remarkable cure of an amaurosis by applying local insolation.

J. S., a native of Dresden, forty years of age, had served from his nineteenth to his thirty-fifth year in the Saxon infantry, and amongst other excesses had profusely indulged in venery. When thirty-seven years old, he suffered much from the gout, but was restored. About two years after, he was seized with nervous apoplexy, which palsied his whole right side: he was also cured of this complaint, but it left a weakness in the organs of sight, which, in 1809, amounted to amaurosis in his right eye; by his left he saw, as he expressed himself, only as through a gauze. In 1810

he consulted Mr. Loebel, who, on close examination, was convinced that this amaurosis, the consequence of a complaint in the *nervi ciliares*, was connected with a weakness general to the whole organ. He therefore gave him a number of stimulating and nervous remedies internally and locally. Among the rest, very small doses of phosphorus. Under this management, the sight of the left eye was sensibly improved, and the gauze-like film disappeared; but the right eye, notwithstanding the inward and outward application of phosphorus, remained insensible, and the pupilla remained immoveably enlarged, and paralysed. He now resolved to apply local insolation, along with the use of the following prescription:

R. Rad. Valer. Pulv. ℥ijss.

Cariophyl. Arom. ℥j.

Cortex Cinnam. ℥ss.

Spir. Vin. Gall. Opt. ℥iv.

To be taken a table-spoonful every two hours. For this purpose he fixed a silver wire round what is called a burning-glass, and, by means of ribbons fastened to each side, tied this convex glass upon the eye afflicted with the amaurose; then caused the rays of the meridian sun to operate through this glass, at first, only for half an hour. He directed the patient to shut his eye-lids during the insolation, and ordered the other parts of the head to be covered with a white linen cloth. The phosphoric infrictions were now laid aside, but the use of the above-mentioned medicine continued. The insolation was repeated twice a-day, for half an hour before, and three-quarters of an hour after, dinner. The patient was not suffered to open his eye-lids directly after the insolation, but only an hour afterwards, and then only in a darkened, though not quite dark, room. After having proceeded thus for a fortnight, he found the iris to have acquired more power of motion, and the patient, at the same time, complained of an itching sensation in the afflicted eye, but could merely discern the motion of the hand before the same. Mr. Loebel continued the insolation, and had the satisfaction of seeing his patient in a short time cured of his amaurosis. He could discern every object, distinguished all his acquaintances that came to visit him: however he could not read any printed or written characters, nor could all Mr. Loebel's art bring his patient so far as to enable him to read a book with his right eye.

From subsequent foreign journals we make the following extract:—

A very ingenious oculist, Prof. WEINHOLD, M.D. at Merseburg, has published the following remarks in recommendation of the use of Insolation upon the torpid Retina, in the Jena Literary News, Merseburg, Oct. 4, 1815.

“I fully coincide in recommending insolation through *half-convex* glasses, having, in quality of practical physician and oculist, frequent occasions to observe the danger attending the use of the common burning glass. For this reason I commonly cause large
burning

burning glasses to be cut into halves, or cover them half with black paper, by which means the dangerous focus is avoided.

Insolation proved disadvantageous in the amauroses accompanied by a heightened irritability, but advantageous in that attended with torpor, or, as the ancients say, *sine materia*, of course in the amaurosis the consequence of nervous complaints, unattended with gout, lues venerea, or psora."

Mr. LUDEWIG, surgeon at Naufung, cured a chronic inflammation of the eyes, that had lasted many years, by vaccination.

In the spasmodic complaints of a woman which did not yield to the usual remedies, cobwebs, made up with mica panis into pills, procured a lasting amendment.

The efficacy of burnt sponge, prepared according to the directions of Dr. Haussleuther, given in Horn's Archive for 1810, is fully confirmed by Dr. KARSTEN, in a case of a large and obstinate struma.

At a meeting of the subscribers for establishing "*The Medical Benevolent Society*," for the relief of medical men who, either from age or adversity, shall require it, held at the Freemason's Tavern, London, January 29th, 1816, Dr. LATHAM, President of the Royal College of Physicians, in the chair, it was resolved—

"That, as it appears that the time allowed for receiving the names of subscribers has not been sufficient for gentlemen resident in the country to declare their intentions; therefore the books for that purpose shall remain open at Messrs. Child's, Bankers, Temple Bar, and at this Tavern, till February the 24th.

"That, until the 20th of March next, benefactions and subscriptions will be received by any of the Treasurers, viz. Dr. Clutterbuck, New Bridge-street; Richard Ogle, Esq. Great Russell-street, Bloomsbury; and Henry Field, Esq. Christ's Hospital; or by Messrs. Child's the Bankers."

JOHN LATHAM, Chairman.

Several distinguished characters in the profession, amongst whom Dr. Hull, of Manchester, was conspicuous, sent liberal benefactions, and many subscribers entered their names on the books; and the Society commences under the happiest auspices.

The following is the list of officers for the Society:

PRE-SIDENT.—Dr. Latham.

VICE-PRESIDENT.—Henry Cline, Esq.

DIRECTORS —Drs. Haworth, Bateman, Merriman, Luke, P. M. Latham, Ridout; Messrs. Burrows, Hayes, A. T. Thomson, C. M. Clarke, Shillito, Lockley, Tegart, E. Brande, R. S. Wells, Malim, P. Mathias, Reginald Williams.

TRUSTEES.—Dr. Latham, Richard Radford, Esq.

TREASURERS.—Dr. Clutterbuck, Mr. Ogle, Mr. Field.

*General Bill of Mortality, from Dec. 13, 1814, to Dec. 12, 1815,
as delivered to the King by the Company of Parish Clerks.*

DISEASES.		Gravel, Stone, Stran-	Stoppage in the Sto-
Abortive & Stillborn	804	gury	mach
Abscess	105		23
Aged	1757	Grief	1
Ague	5	Headmoldshot, Horse-	St. Vitus's Dance
Apoplexy & Suddenly	421	shoehead, & Water	Teeth
Asthma	680	in the Head	447
Bedridden	2	383	Thrush
Bile	5	Impoathume	118
Bleeding	23	4	Tumor
Bursten & Rupture	34	Inflammation	3
Cancer	88	953	Water in the Chest
Chicken-pox	2	Influenza	30
Childbed	232	1	Worms
Colds	16	1	9
Colic, Gripes, &c.	26	90	
Consumption	4210	1	CASUALTIES.
Convulsions	3324	46	Bit by Dogs
Cough and Hooping		3	Broken Limbs
Cough	729	Lumbago	1
Cramp	4	228	Bruised
Croup	87	711	Burnt
Diabetes	6	2	132
Dropsy	792	Miscarriage	8
Epilepsy	1	306	Excessive Drinking
Evil	7	Palpitation of the	8
Fevers of all kinds	1309	Heart	25
Fistula	3	6	Fractured
Flux	65	163	2
French Pox	22	18	5
Gout	67	5	76
		1	47
		9	1
		4	1
		725	1
		5	10
		11	1
		36	9
		9	

Christened { Males 12281 } In all 23414
 { Females 11133 }

Buried . Males 9882 } In all 19360
 Females 9678 }

Whereof have died,

Under Two Years of Age	5200	Sixty and Seventy	1621
Between Two and Five	1916	Seventy and Eighty	1221
Five and Ten	870	Eighty and Ninety	674
Ten and Twenty	677	Ninety and a Hundred	167
Twenty and Thirty	1425	A Hundred	2
Thirty and Forty	1824	A Hundred and One	1
Forty and Fifty	2075	A Hundred and Three	1
Fifty and Sixty	1886		

Decreased in the Burials this Year 223.

There have been Executed in the City of London and County of Surrey 20; of which Number 8 only have been reported to be Buried within the Bills of Mortality.

The most striking articles in the above report are the increase of small-pox, though the general number of deaths has been somewhat less this year. Measles, cough, and fever have each lessened. It may seem particularly worthy of notice that the number of christenings have exceeded the burials in the proportion of nearly

a seventh part. This is the more remarkable, because the two most populous and probably healthy parishes, Mary-le-bone and Pancras, are not included in the bills. That the health of the town increases cannot be questioned; but it would be very desirable to come as near correctness as possible. It has been said that the present bills are equal to every thing that is required. How can this be the case, when we have no distinction between scarlet and other fevers, and no authority for any other item than the report of parish old women yclept searchers? It is this consideration which prevents our extending these remarks further. Where we have such flimsy authorities, to what purpose is it to form calculations.

Abstract from the St. Petersburg Almanack for the year 1815.

The annual publications of the Holy Synode (which, however, relate only to individuals of the Russian Greek church) inform us, that, in the year 1812, were born in the whole empire—

Males.....	663,741
Females.....	600,650

1,264,391 infants.

41,756 infants less than in 1811.

In the year 1812 died—

Males.....	501,386
Females.....	469,972

971,358

34,990 more than in 1811.

In 1812 the increase of population was of 293,033 individuals, and by 76,746 less than 1811.

In 1812 were married 239,073 couples of the protestant Greek church, 39,527 couples less than in 1811, and 90,216 couples less than in 1810.

From the same undoubtful authority we abstract the following curious List of Longevity in 1812, a year which must for ever remain memorable in the history of national calamities.

213,746 infants died before the age of 5 years.

87,047.....	individuals lived past....	60
45,735.....		70
18,685.....		80
4,982.....		90
2,288.....		95
760.....		100
233.....		105
106.....		110
53.....		115
20.....		120
5.....		125

4....individuals lived past....	150
1	160

N.B.—We can assure, from the best authority, that old people preserve wonderfully their faculties in Russia, memory particularly, which makes tradition a very precious repository of local knowledge. As the Russians in general use freely of fermented liquors of all kinds, their health, longevity, and particularly absence of gout, must be, in great measure, attributed to the severity of their fasts, to the frequent use of vapour-baths (which keeps the old people in excellent bodily condition, and the younger in cleanliness), and to their religious resignation.

Of St. Petersburg we find the following account:—

In 1813 were born—

Males	3,828
Females	3,730

7,558 infants.

315 infants less than in 1812.

In 1813 died—

Males.....	10,870
Females.....	4,114

14,984 individuals.

3,977 individuals more than in 1812.

In the above number of born, 1,089 were Roman Catholics and Protestants, in the ratio of the first to the last as 3 to 14.—958 were bastard, and 53 foundlings; therefore $\frac{1}{3}$ th illegitimate.

The greatest number of births was in March and April (759 males, 684 females); and the smallest in May and September (515 males, and 555 females).

In the above number of dead, 1384 were Roman Catholics and Protestants, in the proportion of the first to the last as 3 to 14 $\frac{1}{2}$.

44 died of wounds.

481 of various accidents.

4,097 of typhus (this was the most dangerous disease).

3,488 of colics (the next dangerous, principally for infants).

3,324 of consumption and pulmonary disease.

77 in child-bed.

126 small-pox.

The greatest mortality was in March, viz. died 1,894.

The least ditto in November 677.

The following is the list of Longevity at St. Petersburg in 1813:

3,775	died as infants before	5	years.
191	died at from	5	to 10
391	.....	10	.. 15
885	.....	15	.. 20
1,943	.....	20	.. 25
900	.....	25	.. 30

2,071	died at from	30	..	35
770	.....	35	..	40
1,136	.....	40	..	45
563	.....	45	..	50
602	.....	50	..	55
393	.....	55	..	60
475	.....	60	..	65
288	.....	65	..	70
256	.....	70	..	75
129	.....	75	..	80
84	.....	80	..	85
47	.....	85	..	90
7	.....	90	..	95
3	.....	95	..	100

In 1813 were married, of the Greek church, 1,099 couples.

.....	Protestants	.....	233
.....	Roman Catholics	..	72

1,404 couples.

49 marriages less than in 1812.

The greatest number took place in February, viz. 202; and the least in March, only 8; and in April only 19.

Out of the above number, 1,068 were bachelors to spinsters.

406	.....	widows.
136	....	widowers to spinsters.
80	.....	widows.
7	..	bachelors to divorced women.
2	....	divorced men to spinsters.
5		divorced men to divorced women.

1,404 couples, as above.

Medical School of St. Thomas's and Guy's Hospitals.—The Spring Courses of Lectures at these adjoining Hospitals will commence the beginning of February, as follows:

At St. Thomas's,—Anatomy and Operations of Surgery, by Mr. Astley Cooper and Mr. H. Cline. Principles and Practice of Surgery, by Mr. Astley Cooper.

At Guy's—Practice of Medicine, by Dr. Babington and Dr. Curry. Chemistry, by Dr. Babington, Dr. Marcet, and Mr. Allen. Experimental Philosophy, by Mr. Allen. Theory of Medicine, and Materia Medica, by Dr. Curry and Dr. Cholmeley. Midwifery, and Diseases of Women and Children, by Dr. Haighton. Physiology, or Laws of the Animal Economy, by Dr. Haighton. Structure and Diseases of the Teeth, by Mr. Fox.

Russell Institution.—A Course of Lectures on Electrical Philosophy, with its application to the improvement of Chemical Science, and

and the explanation of Natural Phenomena, will be commenced at this Institution by Mr. SINGER, on Monday the 5th of February, punctually at eight o'clock in the evening.

These Lectures will be continued on the succeeding Mondays at the same hour:—they will embrace the most important features of this interesting branch of Natural Philosophy, with occasional observations on the Sciences with which it is most immediately connected.

Dr. MERRIMAN will re-commence his Lectures on Midwifery at the Middlesex Hospital, on Thursday, February 8th, at half-past ten o'clock.

Dr. ARMSTRONG, of Sunderland, has in the press, a work entitled, *Practical Illustrations of Febrile Diseases*. The principal object of this work is to shew the great advantages of early and decided blood-letting and purging in Typhus, in a disease called the Common Inflammatory Fever, in Scarlatina Maligna, in Measles, in Erysipelas, in Hydrocephalus Internus, in Dysentery, and other affections. It will be illustrated with several cases and dissections.

Speedily will be published, in two volumes, octavo, the *Institutes and Practice of Medicine, founded on the Basis of Anatomy, Healthy and Morbid; and on the well-known Laws of the Animal Economy*. By LYMAN SPALDING, M.D. President of the College of Physicians and Surgeons of the University of New York for the Western District.

Dr. GRANVILLE has in the press, and nearly ready for publication, a translation of that part of Orfila's general Toxicology which more particularly relates to Poisons derived from the Vegetable and Animal Kingdoms. The subject having formed a very important part of Dr. Granville's scientific pursuits, he has been enabled to accompany his translation with copious notes and additions.—The original has only been before the public a few days, and is not yet in general circulation.

In a few days will be published, the second part of Orfila's *System of Animal, Mineral, and Vegetable Poisons*. This will complete the first volume of this very interesting work. The two remaining parts will appear during the ensuing spring.

Shortly will be published, in one octavo volume, an *Account of a Visit to London in the Year 1814; wherein is exhibited a comparative View of Surgery in England and in France, preceded with Considerations respecting the London Hospitals: translated from the French of Monsieur Roux, Professor of Anatomy and Surgery at Paris*.

METEOROLOGICAL REGISTER.

From December the 25th, 1815, to January the 26th, 1816.
Kept by C. BLUNT, Philosophical Instrument Maker, No. 38, Tavistock-Street, Covent-Garden.

Moon.	Day.	Wind.	Barometrical Pressure.			Temperature.			
			Max.	Min.	Mean.	Max.	Min.	Mean.	
	26	W	29.49	29.11	29.312	50	28	41.25	Snow & Rain
	27	NW	29.69	29.07	29.375	50	26	39.5	Snow
	28	NW	29.83	29.76	29.795	50	28	38.	Rain
	29	W	29.90	29.84	29.877	49	32	40.5	Fair
☉	30	W	30.40	30.14	30.287	50	30	42.75	Fair
	31	W	30.40	30.40	30.40	47	32	40.75	Fair
	1	W	30.38	30.27	30.32	46	30	39.25	Fair
	2	W	30.15	30.02	30.087	44	32	38.5	Fair
	3	W	30.14	30.	30.08	44	25	35.25	Fair
	4	W	30.28	30.23	30.267	43	26	35.	Fair
	5	W	30.12	30.08	30.095	42	25	34.	Rain
	6	W	29.78	29.66	29.715	45	32	40.	Fair
☽	7	NW	29.64	29.64	29.64	43	33	38.5	Fair
	8	NW	29.63	29.38	29.50	48	32	42.	Rain
	9	W	29.50	29.46	29.382	47	33	42.	Fair
	10	W	29.40	29.30	29.34	48	35	42.5	Fair
	11	W	29.13	29.99	29.045	44	39	42.5	Fair
	12	W	29.46	29.13	29.325	46	35	41.75	Rain
	13	W	29.03	28.95	28.99	46	36	42.	Fair
☉	14	SW	29.22	29.22	29.22	46	35	42.	Rain
	15	S	29.30	29.17	29.20	46	34	40.5	Fair
	16	NW	29.66	29.57	29.63	47	34	40.5	Fair
	17	NW	29.60	29.46	29.545	49	35	40.75	Fair
	18	W	29.65	29.65	29.65	49	33	41.25	Rain
	19	W	29.77	29.70	29.747	50	32	42.25	Rain
	20	SW	29.58	29.52	29.54	49	32	42.5	Rain
☽	21	S	29.52	29.52	29.52	49	32	42.5	Rain
	22	S	29.55	29.52	29.54	50	33	42.5	Fair
	23	N	29.53	29.43	29.462	51	33	43.5	Fair
	24	NE	29.29	29.22	29.247	50	35	43.	Rain
	25	NE	29.16	29.16	29.16	50	35	43.25	Rain

RESULTS.

Mean barometrical pressure of the month	29.557	Mean temperature of the month	46.46 deg.
Maximum 30.40,	wind at W	Maximum 51,	wind at N
Minimum 28.95,	_____ W	Minimum 25,	_____ W

Scale exhibiting the prevailing Winds during the Month.

N	NE	E	SE	S	SW	W	NW
1	2	0	0	3	2	17	6

	Mean barometrical pressure.	Mean temperature.
From the last quarter on the 23d Dec. to the new moon on the 30th.	29.571	38.214
new moon on the 30th Dec. to the first quarter on the 7th Jan. 1816	30.156	38.187
first quarter on the 7th, to the full moon on the 14th	29.288	41.617
full moon on the 14th, to the last quarter on the 21st	29.504	40.307

REPORT

REPORT OF DISEASES.

IN our Report of Diseases we shall be very short, not so much on account of the want of room, as on account of the sameness of the temperature, and consequently of the diseases.

The acute diseases have considerably lessened, in number, force, and proportion of fatality. They are very similar to our last report, excepting that small-pox has greatly declined. It has not been succeeded by measles. Scarlatina has occurred, but mostly, if not entirely, among new comers to the metropolis, and very young children. Pleurisies continue, but with less violence; and the improved practice of early and free blood-letting has proved a speedy relief to all who applied early.

Rheumatism, and even gout, have been more frequent among all classes. As we suspected, the bandaging system has failed in some cases; but this ought not to supersede its use. In the early stages of rheumatism, bleeding, as well as purging, are very generally successful. In the more advanced, purging seems the only remedy, excepting that in a very few debilitated subjects the bark has been of service, but in all others it seems to do harm. In the very advanced stage of gout and rheumatism, in which the pains are wandering, and the general irritability excessive, decoction of bark with turpentine has been found serviceable. Do not the virtues of guaiacum depend on its resinous properties, like the turpentine? When the pains are local, nothing is so sure of success as topical bleeding. Where cupping-glasses can be applied, they are greatly preferable to leeches.

MONTHLY CATALOGUE OF MEDICAL BOOKS.

A TREATISE on the Mineral Waters of Gilsland. By W. Reid Clanny, M.D. M.R.I.A. &c. 8vo.—Callow.

Medical Transactions, published by the College of Physicians of London. Vol. V. 8vo.—Longman and Co.

Medico-Chirurgical Transactions, published by the Medical and Chirurgical Society of London. Volume the Sixth. 8vo.—Longman and Co.

Dialogues on Chemistry, intended for the Instruction and Entertainment of young People; in which the first Principles of that Science are fully explained. 2 vols. 18mo.—Baldwin and Co.

NOTICES TO CORRESPONDENTS.

We fear Dr. T.'s mode of announcing his work will have too much the appearance of an advertisement.

If the anonymous correspondent really did send such a specimen of Latinity as a prize composition, we recommend him to some grammar school in which the birch is not spared. If he intended it as a hoax, the Editors assure him they have a blanket in constant readiness, and their printer has always four stout pressmen, who may exult such a witting higher than he wishes.

Communications have been received from Drs. RAMSAY, KINGLAKE, SUTTON; E. C. B.; and an anonymous paper on the Heart, &c.

THE LONDON
Medical and Physical Journal.

3 OF VOL. XXXV.] MARCH, 1816. [NO. 205.

"For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work to which the Faculty in EUROPE and AMERICA were under deeper obligations than to the Medical and Physical Journal of London, now forming a long, but an invaluable, series."—RUSH.

For the London Medical and Physical Journal.

Observations on the Application of Oiled Silk or Oil-Skin, to the Surface of the Human Body; by ALEX. RAMSAY, M. D. Lecturer on Anatomy and Physiology, &c. &c.

IN the year 1796, I was induced to draw deductions respecting the treatment of the human skin, where the vessels become enfeebled or inert, from the following circumstances:—When I was a student of anatomy, the frequent occurrence of wounds from the scalpel, occasioned my adoption of finger cases formed of oil-skin, which, being impervious to moisture, prevented the danger accruing from the contact of wounded parts with putrid matter. This impervious substance, equally precluded the escape of vapor from the finger, retained the heat, and occasionally the perspiration appeared in a condensed state on the oil-skin. Observing this local influence, I was in the use of recommending to my pupils, in my lectures in Surgeon's-square, in Edinburgh, in 1796, and subsequent years, the application of oil-skin in all cases, where an artificial atmosphere was denoted, in a partial or general manner to the surface.

Whether the universal use of this substance took its rise from these hints I have mentioned, is of little consequence to the public or to me; the proper application of it, however, is of importance to invalids; and, on my late return to Europe, in 1810, I find it hurtful in some cases, from an ignorance of the rationale of its operation. I therefore trust, that a liberal public will forgive my obtruding on their attention this subject, so long familiar to me, and so often productive of the most unexpected happy consequences; nor can this surprise us when we consider the highly vascular and nervous economy of the structure of the skin, a diagram of which I had the pleasure of offering, (No. 184, June

1814,) prepared with the cold injection which I have recommended in America, and find now frequent in Europe.* I shall first enumerate a few general circumstances; and then the particular applications of oil-skin.

General Observations.—In all cases, the oil-skin ought to be lined with woolly cotton or flannel; this at once prevents the coldness of the silk being perceived when first applied, absorbs perspiration, and has the effect of obviating the chilling sensation experienced after the ceasing of copious perspiration.

I shall be particular, in pointing out, where an outside covering is denoted to prevent friction, because the influence of the substance is lost, whenever the surface is abraded. I should be apt to suppose, that when coarse oiled linen is adopted in place of silk, that the rough side should be exposed to the human skin, as less conduction takes place than from the smooth surface.† The linings, in all cases, ought to be loose, so as to be removed, and dried or washed daily; the surface of the silk ought to be sponged with a slight soap-lather; when the linings are stitched in, and left over night in foot-socks, &c. they become damp in the morning, and partially overthrow the purposes intended.

Gloves.—From what has been said, the reader will conclude, that a cotton or flannel glove, distinct from the oil-skin, is to be used, over which the oil-skin glove is to be drawn: when they are separate they can be dried, resume their entire purposes; and, by drawing a common glove over the oil-skin, the heat is increased, and the surface of the silk preserved. The lining and outer glove may be adapted to the state of the patient, in their fabric of cotton or worsted, &c. For children and old people, in gout, rheumatic affections, palsy, &c. these applications seem highly useful.‡

Waistcoats, &c.—Waistcoats, or breast-pieces, I have known to banish hæmoptosis, and alleviate asthma: they often excite blisters if a lining is not added; drawers, stockings, and foot-socks, are now frequently in use; and local affections of partial organs, as the throat, joints, or surfaces of the skin, &c. are relieved by this application. All these require linings only, as the cloathing and stocking preserve the

* See No. 184 of this Journal, alluded to.

† Excepting, however, on this account I must prefer the smooth side toward the skin, as its abrasion is thus lessened, and it admits of being more easily sponged and cleaned.

‡ I have known even cutaneous eruptions corrected by this plan of precluding atmospheric influence.

outer surface. A complete envelop in a desperate case of dropsy abroad, not only excited sensible perspiration, but occasioned much alleviation of symptoms.

Bed covers.—I find, by several experiments on myself, and some on patients, that oil-skin forms a powerful substitute for bed clothes; indeed, a few bed clothes are necessary as interposing substances, to lessen the over accumulation of heat. The sudden condensation of the perspired matter, by the oil-skin in cold weather, reflects the extricated heat so abundantly, as to induce, occasionally, copious perspiration seemingly in a short period. I, therefore, lay the silk over the blankets, with a woolly cotton interposed, as an absorbent, as the oil-skin is usually in a profuse wet state in the morning, and thus injures the blankets. In my own case, I find, that covering from the feet up to the knees sufficiently excites the system; a weighty coverlet spread over the oil-skin, occasions a regular application to the surface of the body, and thus produces a rapid and equal excitement of the external vessels.

Envelop.—Where great cold is experienced, or sudden perspiration denoted, would an envelop of flannel, applied to the skin, around which a similar covering of oil-skin may be wrapped, produce the intended effect?—My experiments on myself seem to favour this opinion.*

Cloak of Oil-skin.—I have ordered a cloak to be formed of oil-skin, for the purposes of repelling rain or cold, which may be seen at the gentleman's shop named below,† to whom

* The improper treatment of domesticated animals, seems to pervert their constitution. Gentlemen of the veterinary art, have observed to me, the frequent failure of sudorific medicines, given to the horse.—Would a covering of oil-skin produce the effect wished, by exciting the cuticular system?—Are not our animals too much confined in houses? I have observed in my travels, that no cattle were so well-conditioned as those that never were housed. Where the constitution is sound, no children, no people suffer so little from inclemency of any kind, as those who do not indulge in warm cloathing. I fear your readers may suspect me as too much bordering on quackery, too sanguine and extended in my proposals and applications of oil-skin, but the unprejudiced man must perceive, that my recommendations flow from the structure of the skin, and my belief of its functions; as also its perversion of structure by too much covering, by debilitating causes, &c. and the necessity of counteracting this state, by a substance adapted to exclude powerful transitions, and to facilitate the operations of nature.

† Mr. John Hargrave, umbrella and parasol manufacturer, and whalebone cutter, No. 29, Bishopsgate-street-within, London.

I have communicated those mechanical notions, not applicable to your readers or the purposes of your Journal.

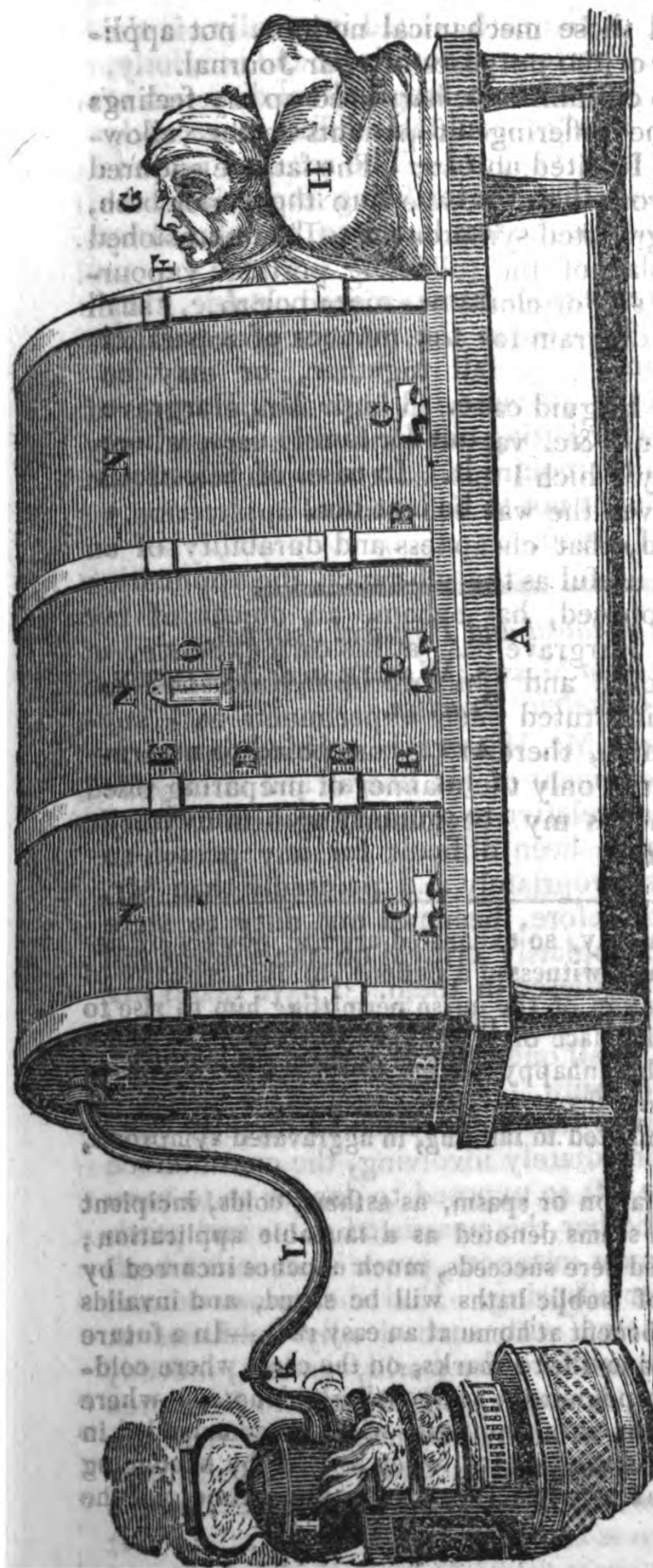
Vapour-Bath.—No circumstance harrowed up my feelings more cruelly than the sufferings of patients in the yellow-fever hospitals, which I visited abroad. The fatigue endured by conveying them from their chambers to the vapor bath, seemed to induce aggravated symptoms.* This occasioned my proposing the plan of the following portable vapour-bath, formed of oiled silk or cloth, or painted cloth. I shall refer to the annexed diagram for conveying a notion of this apparatus.

In yellow fever, in languid cases, in high temperatures of climate, in low typhus, &c. vapour-bath became the only preparatory means by which I quelled the irritation of the stomach, and thus paved the way for medical application.†

I have only to add, that cheapness and durability of an article so extensively useful as the substance, the application of which I have proposed, has become an object of my attention. Mr. John Hargrave has, at his own expence, in a manner equally polite and philanthropic, furnished me with materials, and instituted such experiments as I suggested. This gentleman, therefore, is in possession of my opinions, respecting not only the manner of preparing oiled silk and cloth, but merits my recommending him to public attention and confidence.

* In this dreadful malady, so exhausted are the powers of nature occasionally, I have witnessed a patient, in the syncopy of death, from the indiscretion of the nurse permitting him to rise to make water or stool, in place of introducing the bed-pan, and I was forced to permit the unhappy victims to remain longer in the squalid linens they wore than cleanliness seemed to dictate, as shifting them often terminated in fainting, in aggravated symptoms, and even in death.

† In all cases of irritation or spasm, as asthma, colds, incipient fever, &c. vapour-bath seems denoted as a laudable application; and, if the plan proposed here succeeds, much expence incurred by individuals in the use of public baths will be saved, and invalids can always enjoy their benefit at home at an easy rate.—In a future communication, I intend to offer remarks, on the cases where cold-bath, warm-bath, and vapour-bath, are peculiarly denoted—where the above mode of vapour-bath proposed, will be recommended in cases of corpulency, by which means, when assisted by bandaging the arms, legs, and trunk, the vessels acquire habitual tone, and the system may be altered.



A, represents a frame, on which a bed or mattress is laid for the reception of the patient. That this mattress or bed may always be ready for use, it ought to be furnished with an oil-cloth cover, which will repel the vapour to be included. A blanket is placed on the mattress or bed, the patient is to be placed on the same, wrapped up in a blanket. B, is the frame of the vapour-bath, suited to the frame A. In the frame B, longitudinal openings, defended by iron-plates, admit iron turning-pins, C, which spring from the frame, B; these being admitted and turned across the frame, the frames A and B will be firmly united. The cloth of the vapour-bath, in shape of a waggon-top, is firmly and closely united to the margin of the frame B. Hoops of whalebone, (D) cane, or any other bending substance, are passed through hoops E, by which means a complete cavity is presented for the effusion of vapour. The end (F) is drawn carefully around the neck of the patient (G) like a purse, the head is placed on the pillow H. A tea-kettle (J), filled with boiling water, placed on the fire, has a nozzle (K) annexed to it, from which a leather tube (L) is sent off; this tube is inserted by a similar nozzle into the end of the bath M, which ought to enter at the top, that the vapour may not come too suddenly in contact with the body of the patient. A thermometer (O) may be inserted into an aperture, by which the temperature is determined.

Were the nozzle (M) of the bath dilated internally, in the shape of a large globe, perforated anteriorly and inferiorly, or a tube passed through the whole longitudinal direction of the bath, perforated inferiorly; would this diffuse more safely and extensively the issuing vapour?—The reason I propose the inferior perforations is that, the top being impervious, the upper surface of the bath is the less liable to be injured by the heated vapour.

If it is required to render the frames more portable, they may be held together by iron in the manner of a parallel ruler, by which means, they fall together, or may be brought to right angles at pleasure. I hope Mr. Hargrave will prepare such baths for letting out for family uses, where common cases of debility require it. In cases of infectious maladies, such baths ought not to be lent out.

London; January 27, 1816.

For the London Medical and Physical Journal.

Dr. KINGLAKE, in Reply to Messrs. WAYTE and ATKINSON,
on *Obstetric Practice*.

YOUR correspondent Mr. WAYTE is entitled to my respectful acknowledgment of his liberal and intelligent comments on my opinion relative to ordinary man-midwifery practice. It would have been difficult for any person to have remarked more appropriately and pointedly than Mr. Wayte has done: it, therefore, becomes my duty to state why observations so exemplarily critical on the subject fail in compelling me to acquiesce in them. I have taken my main stand on the grand basis of natural provision,—a stand that must be regarded, in all questions of natural philosophy, as the *vantage ground* of truth.

It is not to be conceived that an occasion so directly connected with, and so immediately involving, the continuance of human life, could be left so exposed to danger as to have rendered it doubtful whether the unassisted pains and perils of birth might not, in most instances, prove destructive both to the female and to her offspring. Had the human animal economy been constructed with such deadly liabilities at the period of being ushered into the world, random, indeed, of the most fortuitous kind, might justly be said to have prevailed in the organization of animal nature, rather than the exquisite design, contrivance, and adequacy, that beautifully pervade every portion of it. To gravely affirm that Nature's provision for parturition is too insufficient to be safely left to its own resources, appears to me to be as far-fetched, and as untenable, as it would be to affirm that the peristaltic power

power of the intestines is not equal to the due expulsion of their excrementitious contents; that the urinary bladder cannot sufficiently contract to discharge its enclosed fluid; nay, that the heart itself, with its extensive and various vascular appendages, could not adequately act without the aid of art. The accidental insufficiencies of Nature are not her original handy-work: they are, in every instance, morbid deviations from the primitive perfection under which she invariably appears.

Admitting, then, what cannot be denied, that Nature's works are equal to all their ends, and that it is with the deviations from the natural standard of perfection that the hand of art has to do, I will cursorily examine the various instances in which your respectable correspondent has contended for the employ of scientific man-midwifery; and it will then be seen whether he has substantiated his occasions for the practice in a way that would not only render its adoption popular, but even philosophically vindicable.

With regard to the placental presentation, said to occasionally occur, it appears to me that the occasion is as rare as a deviation from the natural course can be; indeed, instead of a deviation from, it may be said to be an inversion of, the order of nature, which is a topsy-turvy course not reasonably to be calculated on. A mal-formation of the heart, of the intestines, or of any other viscus, is as likely to happen, as for a placenta to be attached over the orifice, instead of at the bottom, of the uterus. If my information be correct, it is not risking too much to say, that there is not more than one practitioner in a thousand in any age, in any country, that has ever met with an instance of it;—and is the bare possibility of such an occurrence, amidst the extreme rareness with which it has actually taken place, to be one of the leading grounds on which indiscriminate man-midwifery practice is to be founded? But, admitting it happened often enough to excite an apprehension in every case that it might occur, may not female midwives be sufficiently instructed at least to know the exigencies of the case, if not capable of affording the requisite aid, so that the competent practitioner may be as seasonably and as availingly called to assist in that emergency, as he could in other cases of dangerously bleeding vessels, fractures, &c. Nor is it clear that a placental presentation unrelieved, and unperforated for the manual delivery of the fœtus, would terminate in death. The uterine contraction that would detach a placenta from the os uteri, would also advance the head of the fœtus sufficiently close to the bleeding source, to restrain, by the firm pressure it would occasion, the effusion of blood within

within safe limits. This presentation, therefore, in addition to its being much too unfrequent for anxious calculation, might actually occur, and terminate favourably without the intervention of art.

Your correspondent asks, "Must we not, at times, assist in dilating a rigid os uteri?" To which my reply is, that, with all due deference to his experience in obstetric practice, I know not the occasions in which such interference with the parturient action of the uterus is at all necessary; and it happens to be one of the instances that was in my view when I employed the terms *intermeddling*, *mischievous*, &c. I think that any sort of interference with the excitability of the impregnated uterus, in its closed state, may be likely to derange and injure the natural process of parturition; and the circumstance of rigidity in the os uteri denotes that the secreting action of the part is not sufficiently advanced for the expulsion of the foetus. I have, therefore, in such instances, regarded and denominated such affectation of aid as gratuitous, meretricious, busy, hurtful, &c. These epithets may be deemed harsh, but the cause in which they are used is that of philosophical truth, which disdains blandishments, and expresses itself in unequivocal firmness.

The requisite assistance claimed by your correspondent in a face-presentation, for the purpose of shortening its axis, is, in my judgment, refining too much on the variable posture of the presenting part of the foetus, during uterine contraction, to be of practical utility. Slight deviations from the right line of exclusion are rather the momentary effects of the contractile action exerted on the presenting part, than a stationary position of the protruding portion of the foetus. The attempt here also to interfere, I would very respectfully say to your correspondent, would be rather an hurtful intermeddling than a beneficial practice.

Profuse uterine hæmorrhages after delivery are also among the objects on which your correspondent rests his defence of man-midwifery. These are afflicting occurrences, but, perhaps, more so in aspect than reality, because the concomitant danger is much less than is often imagined from the salutary circumstance of the hæmorrhage curing itself by the alarming extent of the effusion. When the contents of the sanguiferous vessels are greatly and rapidly diminished, a state of comparative inaction of the heart and arteries is induced, approaching to syncope: during this state, the blood is not propelled with sufficient force to carry on the effusion, when the leaking sources of it become plugged by *coagula*, that happily restrain any further hurtful escape of the sanguineous fluid. What better, or rather what so well,

well, could be done by an obstetric practitioner? No stimulant medicine would be admissible, no manual aid could be usefully offered. Low temperature, and the recumbent posture, constitute nearly the whole assistance that this popularly terrifying scene of blood, and, as it were, suspended animation, would seem to require.

Why the practice of midwifery should have passed from the hands of women into those of men, your correspondent must know is rather a question of history, and of the moral circumstances of society, than one of "reason" or of "necessity." The *necessity* that your correspondent would insist on is but of modern date: female parturition must have existed over the habitable surface of the globe ever since the commencement of human nature. Why then should this imperious necessity have been so slow in proclaiming itself? The female system has always been what it now is; and the population of remote antiquity was much more numerous than it appears to be at the present time. The issue into life at those periods of antiquity appeared to be unencumbered by the obstacles that your correspondent recites; at least, we know that there was no one so skilled in the obstetric art as either to detect or remove them. What sort of *necessity*, then, is this which your correspondent assumes for midwifery to pass from the hands of women to those of men? It pleads neither antiquity, nor any ancient disadvantages from its not having been known and earlier adopted: it would seem, therefore, to be a *necessity* rather of artificial than of natural creation, and is, of course, open to the imperfection of all human devices. The "strong reason" that your correspondent speaks of as the foundation of his assumed *necessity*, rests on grounds quite as unstable as those of the *necessity* itself: in short, both the one and the other appear to be derived rather from professional *craft*, as formerly intimated, than from a philosophical persuasion of its *necessity*.

Your correspondent has, in a way unworthy of his intelligence, enlisted into the number of his arguments for the practice of man-midwifery, an assertion that there is not one woman in a hundred who would not prefer a male practitioner on midwifery occasions, because they think themselves more safe! This instance of popular preference on the part of females towards male practitioners in midwifery proves the incorrectness of appealing to them on the subject, and shows, indeed, the trade alacrity with which female prejudice has been cajoled and confirmed on the occasion. This proceeding may be consistently stated as illustrative of the rise and progress of man-midwifery practice, but it can-

not be admitted as any sort of explanation why, in justice and in truth, it ought to have been transferred from the female to the male hand.

Your correspondent, after having exhausted the graver part of his reasoning on the *necessity* of man-midwifery, condescends to triteness, bordering on ridicule, in putting the question—"Does the doctor think women preferable, through their ignorance, and inadequacy to difficulties; or men improper, because well versed in the whole department? Ignorance is surely much more prone to blunder, than science to be over officious." It was not to be expected that a person of your correspondent's apparent acquirements would have dealt in mere expletives: nothing can be more pointless and inapplicable than the doctrine of contraries in a scientific discussion. Occasions do present where the severity and felicity of argument may be relieved by judicious sarcasms; but your correspondent is not entitled to that latitude of indulgence. He must previously explain the claims of man-midwifery for general adoption, on principles and facts much more convincing and conclusive than any thing he has adduced in his paper under consideration.

My object in publishing my late remarks on the dispensable claims of the obstetric art was to place under the competent direction of Nature an office as absolutely and unexceptionably provided for as any other function in the animal œconomy. I do therefore contend that the practice of medical accoucheurs attending in all cases of parturition, lest something might arise requiring scientific aid, is not less preposterous than incessantly attending on a person lest the liver should not secrete bile, the kidneys urine, or any other viscus should cease to perform its peculiar function.

The diseases of females connected with utero-gestation very naturally fall within the province of medical treatment, as do all the deviations and irregularities during the parturive effort under the skilful and scientific accoucheur; but were the ordinary practice of midwifery to be confined to women, and reference only had to a male practitioner in cases of absolute necessity, much less would be heard of preternatural labours, laborious and inefficient efforts for natural parturition, and of resorting to manual and instrumental aid. Undisturbed nature would then proceed slowly, safely, and efficiently, for the seasonable expulsion of the fœtus. No violence would have been in any way added to the usual excitement of the uterus; and though, in some cases, the period of parturition may seem to be prolonged, yet it is more than probable that the delay will be abundantly compensated by the unimpaired health of both mother and child,

child, by freedom from inordinate after-pains, from puerperal disease, from uterine distemper, and various other affections, growing out of, or associating with, a morbid derangement of the female genital system; from infantile mutilation, deformity, and various other irreparable injuries.

It is not my object, nor would my feelings permit me, to do ample justice to my firm persuasion that mischiefs of the most calamitous nature result from the present indiscriminate and extended scale of man-midwifery. To say nothing of the unquestionable instances of mal-formation of the pelvis, of a monstrous and impassable volume of head to descend through that bony boundary, it cannot be heard, without shuddering, that the practice is not rare in which, after a lapse of less than twelve hours in lingering and inefficient labour-pains, the prompt, the skilful, the instrumental accoucheur denounces the sufficiency of Nature; and, where the presentation is natural, where no symptoms of imminent danger on the part of the mother have arisen, he commences his scientific work by boring the fœtal skull, and compressing it within practicable limits for extraction; and when the ill-judged destructive interference is over, full credit is asked, and given, for having saved the mother's life; and the *obstetric warranty* is then gravely pronounced—*when difficulties compel either the sacrifice of mother or child, the latter is the authorised victim!* Such cases have occurred, are occurring, and will continue to occur, as long as man-midwifery shall continue to be practised as universally as it is at present, and with all the gravity and grimace of its being indispensably necessary.

The cases which are now, to an incalculably baneful extent, falling under the superior adroitness of the skilful obstetrician, and which must be handled and managed with the instrumental tact of his erudite art, would, I verily believe, for the most part, prove common and favourable occurrences in the uninterrupted course of nature. The cause of humanity is deeply concerned in the utter abandonment of ordinary man-midwifery; in leaving natural labour to its own resources, soothed and cherished only by the benevolent kindnesses of female attendants. By this happy reclamation of natural right, the inherent sufficiency of the parturine function will be ascertained and established. The artificial incapacities of nature will no longer be recognised; and the real occasions for scientific accoucheurship will be too seldom either to awaken female dread, or to countenance the watchful calculations of the obstetric theorist.

After the above was written, your Journal for the present
 z 2 month

month reached me, in which I observe some remarks, published by Mr. ATKINSON, on my opinion relative to obstetric practice. Mr. Atkinson has gone more into practical detail on the subject than Mr. Wayte has done; and it may be justly added, that he has very candidly and intelligently stated his arguments in behalf of the prevailing system of man-midwifery: I wish I could say that he has been more successful in convincing me of the truth and conclusiveness of his positions. The various reasons he has adduced for authorising the unaltered continuance of the practice, lose, in my judgment, all their weight, when it is considered, that those reasons, as well as others that might be offered, rest on *exceptions* to a general rule, rather than on the legitimate demands of nature. To argue from exceptions may be plausible; but the stability of the general principle cannot be invalidated by it.

My objection to uniform man-midwifery practice is founded on the corollary that Nature is fully equal to her own work, and cannot be advantageously assisted in the execution of it. To speak of exceptions or deviations from this inherent correctness, is rather to imagine than satisfactorily to exhibit proofs of such insufficiency. It would be easy to conceive an endless extent and variety in the obstacles to the natural efficiency of power, yet it would be extremely difficult to state them in a way that could bring them under the regulation and controul of art. In the course of nature, with reference either to the animal economy, or to the general laws of motion, do impediments present often enough to need the countervailing and amending aid of human art? Animals live, the planets revolve in their respective spheres, repulsion and gravitation, in their infinite modifications, proceed with too much of the undeviating precision of primordial perfection to require the interposition of human assistance to rectify and adjust incidental irregularities.

The list of claims cited by Mr. Atkinson for indiscriminate man-midwifery practice would, if well-founded, fully justify what he so strenuously insists on; and the bare enumeration of such a groupe is sufficient to terrify the unprofessional and the prejudiced into a persuasion that the practice could not, in any case, be dispensed with. But what is the real fact? Why, it has been ascertained to an extent that sets all questions at rest on the subject, that medical practitioners, in full midwifery employ during upwards of thirty years, have never met with an unnatural presentation, have never had an occasion for using an instrument, and have always found the natural efforts equal to all the exigencies of salutary parturition. This demonstrative proof of the undue
zeal

zeal with which the alleged indispensable necessity of uniform man-midwifery is urged, might be further verified by the names of practitioners that would render it incontestible; but is not the same affirmed, trumpet-tongued, and beyond contradiction, by the notorious fact that the Asiatic, the African, and the uncivilized part of the American females, to this hour, are for the most part left to spontaneous parturition, and the historians of those people have not cited any of them as instances of suffering for want of the obstetric practice!

Nature possesses much pliancy, and may be variously modified for purposes of art; but this facility of adaptation should not be mistaken for an inherent defect requiring to be supplied by artificial means. Any disease incident to the human body is constantly more likely to occur than a deviation from the natural course of parturition requiring manual aid; and would it not be deplorably absurd to be in attendance on a person lest a disease at any moment should arise?

The baneful effects of man-midwifery practice in every description of case are the popular expectation that something is to be done where nothing ought to be attempted; and the impatience that is too apt to be felt at the seasonable and salutary delays of natural delivery. There is no standard period for the uterine expulsion of the fœtus. Various moral as well as physical causes are influential in either promoting or retarding parturition. It would, therefore, be presumptuous to decide, in any case, what should be the period of natural effort. The labour that, in certain circumstances of strength and energy, would be safely accomplished within twelve hours, in other cases, incapable of strong uterine contraction, would require four times that period to be either safe or seasonable. All this Nature understands: she operates by a nice adaptation of circumstances, which precision constitutes the state of necessity; and with this well-adjusted, and, in general, happily efficient order, there should be no interference, without the clearest persuasion of its being indispensably necessary.

Were I not restrained from relating instances of the mischievous effects resulting from the prevailing practice of man-midwifery, it would be abundantly in my power to adduce proofs of injury, that would greatly outweigh the cases stated by Mr. Atkinson of the indispensable necessity of scientific aid. It would be invidious and unfeeling to descend to particulars, where I conceive the principle on which the practice is founded is so open to attack, and so
utterly

utterly indefensible, as that which would authorise and vindicate the practice of man-midwifery in all cases, because, perchance, in one instance in a thousand, something like obstetric advice and management might be deemed requisite.

Taunton; Jan. 10, 1816.

For the London Medical and Physical Journal.

On Pulmonary Diseases; by THOMAS SUTTON, M.D.

AS I perceive, in Dr. Buxton's last Letter, nothing that needs so particular a reply as to give to this communication the form of controversy, and as every end I could have in view has been already answered in so far as relates to him, I shall, at present, wave, as much as possible, any allusion to that gentleman or his institution. I must, however, assure the doctor, that my object has not been a victory over him, or personally over any one, but a wish to rectify some errors that appear to me to have crept into the practice respecting Consumption; and to excite to further, and, I hope, more accurate, observation on the subject, both in so far as the treatment of the disease is concerned, and also in respect to some facts and analogical conclusions which I judge to be in need of re-consideration. I shall now direct this and any future communication I may make on the present subject to these objects.

Having stated that the air of closed apartments, and high equable artificial temperature, are not favourable to diseases in the form of pulmonary consumption, I shall begin by giving some cases somewhat bearing on that subject.

CASE I.—This is the case of a young lady, aged 20, who was under the care of Mr. Emerson, of Sandwich, and communicated to me by letters, the first of which I have abridged somewhat, retaining, however, every material feature of the case. The patient was attacked suddenly on the 18th of last January, with pneumonia of the most acute kind, but chiefly confined to the left side. Ten ounces of blood were immediately taken away, and on the following day eight ounces: the strictest antiphlogistic regimen was enjoined. On the active state of inflammation being subdued, no decided symptoms of amendment took place; but, in the course of a month, hectic symptoms seemed approaching, accompanied by an expectoration which had every character of purulence, in quantity sometimes exceeding one

one pint and a half in twenty-four hours. The pulse at this time was 100 and upwards. A portion of the expectoration was now dissolved in vitriolic acid, according to Mr. C. Darwin's experiments, which, on the addition of water, threw down only a small precipitate. The symptoms were, however, now sufficiently alarming to induce Mr. E. to request a consultation with a physician in the neighbourhood. The plan agreed on was to use a more tonic and astringent diet; to continue in the use of digitalis; and to employ gentle sedatives and chalybeates to strengthen and to allay irritation. On this plan, the patient, after the expiration of a month, became improving. The pulse was reduced to 60 and 70, and natural in its pulsations; the perspiration diminishing; cough and expectoration abating, and both in a short time quite disappeared; increasing appetite and strength, with tranquil sleep, indicated returning health. Without any apparent cause, in the latter end of March, every symptom of the disease, only in a lesser degree, returned, and which was succeeded by the same progress to amendment, viz. the disappearance of cough, expectoration, and perspiration, &c. This amendment continued to the latter end of April, when a relapse ensued, and is now followed by the same apparent recovery.

The letter stating the above particulars is dated the 12th of May, in which Mr. E. also says, "my patient, as you may naturally suppose, after such repeated attacks, is much emaciated." In another part of the letter he states her strength to be equal to being able to sit up "an hour or two."—"During the progress of the disease, the menses have only appeared twice, at irregular periods." An uniform and medium temperature has been attempted; and, in a room uninfluenced by artificial heat, during the last two months, the thermometer has averaged 63°. Mr. Emerson also asks, "Can a more probable cause be suggested for these fluctuations than the formation of vomicae or circumscribed abscesses?"

In answer to this letter, I recommended that the patient should be allowed to breathe as much of the external air as possible; and that, instead of keeping the room at 63°, it should, at that time of year, be kept in as low a temperature as could be obtained. For both which purposes, I recommended the windows to be kept open as much as could be by night and by day; that the patient should be every day brought into the garden, when the weather would admit, and placed in the shade, and remain there as long as her strength would allow. On the subject of diet, I recommended mild nutritive food to be given, and some tender
butcher's

butcher's meat; to take the principal meal early, and in that case to drink a glass of wine diluted with water. On the subject of medicine, I recommended the bowels to be kept moderately open, the cough to be restrained by the use of opium; and, in case the pain in the side should return, to try the effects of a cold lotion to the part; and avoid bleeding, if possible. In about a month I heard from the father, a clergyman, that his daughter was much improved in health; and, some time afterwards, Mr. Emerson sent me a letter on the subject, all of which, in so far as relates to this case, I transcribe—

“DEAR SIR,

“I feel much satisfaction in being able to corroborate the statement which I learn you have received, through my patient's father, respecting her health; whose amendment, since I had the pleasure of writing to you on the subject, under a partial obedience to the plan you suggested, has been progressive, and which has, indeed, proceeded to that degree, that, with due care and restraint, I have no hesitation in supposing will prove permanent. No inflammatory symptoms recurring, the cold application has not been applied, but the free admission of cool air into the room, moderate exercise in the garden, with a full opiate at bed-time, and slight tonic medicines and diet, has been the plan pursued. Medicine has, however, been gradually relinquished, and her health so far restored, as now to be almost totally abandoned. The appetite is sufficiently good; her strength and size increasing, and the former so much improved as to enable her to go through the day without rest, and to ride two or three miles on a mule without fatigue. The chest seems quite free from the least irritation; the pulse has become natural; and her sleep is tranquil, and equal to perfect health. To this apparent safety has my patient arrived from great *danger* and even *despair*. For your judicious suggestions I feel much obliged.

(Signed)

R. EMERSON, jun.”

Sandwich; June 28, 1815.

I received a letter from the father of this patient, dated Nov. 29th, stating that she was gone to Huntingdonshire, and says, his daughter's report of herself is, in every respect, satisfactory. He adds, “I never witnessed such a recovery, and am grateful to Providence and to you.”

Case II.—A man, about the age of forty, became a patient of the Kent Dispensary about June last: he had previously been attended by Mr. Bromley, one of the surgeons to this Dispensary, as a private patient. When I saw him, he shewed considerable marks of progress in emaciation: he had a constant irritating cough, with expectoration; a pulse of 120 and upwards; night perspirations; much heat on the skin,

skin; a constant teasing pain on one side; and a very frequent disposition to vomit. Mr. Bromley also stated, that, in consequence of his sensations of chilliness, he had often seen the patient very near the fire, and coveting external warmth. In respect to medicines, I found no need to vary the plan adopted, being moderately aperient, soothing, and demulient. Cold lotion had also been used to the chest; but it was now strongly enjoined that the patient should seek the greatest degree of cold he could, and to respire the external air as much as possible. For this purpose, I recommended him to be as much out of doors, in the shade, as he well could be; to avoid the heat of the sun; and to sleep with his chamber-windows unclosed, and his bed quite open, while he applied the lotion to the chest, and pursued the plan of medicine before stated. I felt no hesitation in allowing him a small portion of animal food when his stomach would bear it, and a small quantity of porter, provided he adhered to the plan of temperature and air I had enjoined. In ten days I again saw him, when the countenance was considerably amended. Instead of the heated flush of the face, it was rather pallid, indicating a severe or length of illness: his pulse was 84; his cough, expectoration, and pain in the side, had diminished much; and he had little or no perspiration. In a space of time from his adopting this plan, not exceeding, I believe, five weeks, he desired to be discharged from the Dispensary, considering himself as quite well. At this time Mr. Bromley said he had not entertained the least notion of the man's recovery when he became a patient of the Dispensary. This I state as an abundant proof that the case wore a very threatening and unpromising aspect. I have every reason to believe the patient followed the advice given him with the greatest strictness; and ought to add, that the man was reported to me to be addicted to inebriety.

Case III.—I visited, about the middle of August last, the son of an opulent family residing near Farningham. He was reported to me to have been attacked, somewhat more than two months ago, with a fever, accompanied by pulmonary affection, while at a distance from his friends, for which one of the remedies was blood-letting; and, as soon as the inflammatory symptoms had somewhat abated, he was removed to a short distance for change of air, as he continued weak, and made no progress in recovery. Lastly, he was sent home, the uneasiness in his chest continuing, accompanied by cough, with an injunction to be very guarded respecting the external air and cold. In the week or ten days before I saw him, the cough and pain in the side had

so much increased as to render venesection twice necessary, with the application of a blister to the part affected. He also began to have night perspirations, and was grown much thinner. I found the patient with a quick pulse, a flushed countenance, complaining of pain in his chest and uneasiness in respiration, and with a considerable dread of the cold and external air. After some conversation, however, with him, I persuaded him to dismiss all fears of that sort, provided he used a prudent and persevering conduct in respect to them. I recommended him to sleep with his window open, to be as much as possible in the open air in the shade, and, when the blister was well, or even before it was healed, to apply cold lotion to his chest. As the bowels were inclined to be bound, the principal remedy I recommended was a purgative in the *Infus. Rosæ*. In a fortnight from this, my patient paid me a visit at Greenwich early in the morning, in an open chaise, and expressed his grateful thanks for the happy change wrought in his health through my advice. He afterwards went to Brighton for a short time, and returned in good health. Mr. Edwards, surgeon, of Farningham, who attended the patient, informed me that every thing I recommended was strictly complied with. The brother of this young gentleman, who is a few years older, has strong marks of incipient consumption. The age of the patient whose case I have given was 19.

Case IV.—The son, aged eight years, of a gentleman in the neighbourhood of Bexley, was attacked, about the beginning of last May, with measles, with considerable pulmonary affection, and which was so soon followed by the whooping cough, as, in fact, to warrant the conclusion that he had both the diseases at the same time, as the latter strongly evidenced its existence before the measles were over. In the latter end of the month I was sent for to visit him, having also once seen him in the measles. At this period, from a fine stout child, he was reduced to the merest skeleton, and in the greatest state of debility, with a pulse of 140 and upwards. He had lost the peculiar noise of the whooping cough, but expectorated a puriform matter to the quantity of an ounce at a time, and had much heat, but with an increase of fever at night, followed very frequently by considerable perspirations. The child had hitherto been nursed in a close and warm apartment; his body was enclosed in flannel; and great fears were entertained by the family of the disease being increased by cool air, or the access of the external atmosphere. The matter expectorated appeared to give strong evidence of an abscess having formed in the lungs: the reduced and weak state of the child were very

very unpromising, together with the circumstance of the family being prone to consumption; and one of the children of this family had also died, at about the age of the present patient, of a pulmonary affection following the hooping cough and measles, which was, in its prominent circumstances, considered to be so like to the present, as to cause the family to consider this case also as incapable of recovery. Under these unfavourable circumstances, I, however, recommended a total change in regard to temperature, clothing, and air. I requested the flannel to be quickly but gradually removed; that the child be without fire, in a room of considerable size, which the house could well supply, and to be removed from it if the sun at any time shone powerfully on it; to be with the windows open both by night and by day; to sleep without the curtains being drawn round the bed; and to be by day as much in the open air as possible, and in the shade. All this advice was strictly attended to, and the child was taken out in the carriage for several hours in the day time, with the windows down. For the ten first days there was no very obvious amendment, although nothing, in any respect, worse; but, at the beginning of the third week, the child was evidently better, and was considered to be out of danger by the family in the fourth week, and he afterwards rapidly lost all urgent symptoms. He is now a fine stout boy. In respect to medicine, the bowels were attended to, and soothing demulient medicines were given, and varied according to circumstances. This young gentleman was a patient of Mr. Francis, surgeon, of Bexley.

These cases I more particularly relate, because they were attended by respectable surgeons, who, on their part, did every thing to encourage the parties concerned to adopt and continue the plan which was recommended to them. I may here also take the opportunity of saying, that I have the happiness of being generally connected with practitioners of such liberal minds and justness of information, as to be ready to co-operate in every effort recommended for the good of their patients, when candidly explained, and the motives and views properly exhibited. Thus the experience of facts, and the history of events, become doubly important, as I can generally depend upon the account of those surgeons with whom I am connected, with as much confidence as if each individual circumstance passed distinctly under my own observation.

Of the cases, however, which I have given, I do not wish any one of them to be considered as a case of true pulmonary consumption, if such as originate from tubercles alone are agreed to be called so, to which, for method's sake, I should

entertain no objection. Of these cases, I believe, none recover. I would, then, call all cases with symptoms of pulmonary consumption, not so originating, spurious pulmonary consumption, the latter of which I believe to be the greatest number which take this name, and the greater part of which, I think, are capable of cure. These last diseases are often more or less connected with tubercles; and, in the progress of a case of spurious consumption, I believe the lungs prone to take on a tubercular state, as I have seen fatal cases of this kind evidently commencing through accidental disease, when investigated, to exhibit the formation of tubercles, though some to no great extent. It will also happen often that a spurious consumption in its commencement may be afterwards connected with a tubercular one, or become a mixed case in such proportion as the subject may be prone to tubercles in the lungs. I also conclude, that there are many fatal cases of spurious consumption in this country, that, by a different method than that usually adopted and countenanced, might be saved. In addition to what I have said in confirmation of this opinion, the facts immediately following may deserve consideration.

To prove the greater fatality of consumption in the colder months of the year in this country, a statement was made in your Journal, from the Bills of Mortality in London. No. 5-12, including the eight weeks from the 11th of January, 1814, to the 8th of March, give 947 deaths by consumption. No. 29-36 of the same year, from the 28th of June to the 23d of August, give 585 deaths by the same disease, making an excess of deaths in winter to the summer months of more than one-third. Bayle, physician to the Charité at Paris, who has devoted much time and attention to consumption, has given a table of the time of year of the deaths of 244 patients, during three years, in two of the medical wards of that institution, which he sums up as follows:—64 died in autumn—58 in winter—54 in spring—68 in summer. He no-where in his books contradicts or doubts this result, in regard to his private practice, nor hints at the greater frequency of deaths in this disease in winter than in summer, which could not have escaped the attention of a man so devoted to this enquiry, had the ratio of deaths in his practice in any part of the year exceeded any other in the proportion it appears to do in this country. This great inequality of result, then, in regard to the greater fatality of the disease in winter among us than happens in France, must be owing to some cause very materially affecting the disease. This I am disposed to attribute to the greater attention to warmth in the treatment of the disease in this country,

country, in so far as it regards apartments, which acts to the exclusion of the external atmosphere, the fear of breathing the external air, and the factitious warmth employed, together with the numerous means of rendering apartments close in this country which are not thought of in France. Indeed the French are habituated to endure a greater degree of cold, on account of the materials for fire being less abundant and more expensive than with us, and such as they have, and the methods of using them, not tending to so permanent a warmth as with us.

Bayle also gives a table of the comparative number of deaths by consumption in the two wards of the Charité at Paris, during three years, which shews a greater fatality by this disease at Paris than in this country, or the great disadvantages, in respect to their recovery, which consumptive patients labour under in an institution in which they are placed with a considerable number of other patients: to the latter cause I must attribute the unexampled relative mortality alluded to. The total number of deaths by this account were 696, of whom 244 died of phthisis, which is in the ratio of deaths of more than one in three by the latter disease.

I shall conclude this communication by remarking, that our knowledge in England of the ravages of consumption in other countries is very incomplete, as is evidenced by the above table; and, although we should be inclined to admit that many of these cases might have been saved by being placed under other circumstances than in a public hospital, together with the consideration that the death of surgical cases are not included, yet then the mortality in Paris in consumption will exceed much that which has been generally believed in this country to have happened there, if these latter considerations should be supposed to reduce the mortality by one half.

I have also been obliged by having the contents of the bills of mortality* for St. Petersburg, &c. translated for me, from the Russian Almanack for 1815, by favour of General Sablanhaff, in which the mortality by consumption and pulmonary disease appears to exceed one in five. As this abstract is, I am persuaded, very carefully drawn up, and contains more interesting particulars, I send it to you, with a recommendation to print it, with a hope, at the same time, that you will endeavour, as much as possible, to obtain si-

* We gave place to the above-mentioned Bills in the Intelligence of our last Number.—EDIT.

milar documents of mortality, &c. from other countries, which, as containing matter of general information, must always be agreeable to your readers, and may also tend to assist many useful inquiries respecting disease, &c.

Croom's-hill, Greenwich;

Dec. 31, 1815.

For the London Medical and Physical Journal,

An Enquiry into the Circumstances which, in the Application of the Ligature to Arteries, are capable of preventing the Success of its Operations, by the Production of Hæmorrhage; by E. C. B.

Quot homines! tot sententiæ sua cuique vera!

COMPARED to the degree of alarm which was formerly occasioned, not only on the part of the patient, but also of the surgeon, from the accidental occurrence of hæmorrhage, that now experienced by either, from the influence of similar circumstances, is comparatively insignificant. It cannot for a moment be conceived, that hæmorrhage arising from accidents was an occurrence which less frequently happened at that than it does at the present period, and thus enable us to account for the premised fact, by supposing that, in consequence of the rarity of wounded vessels, the terror of the ancients was increased by the novelty of that alarming circumstance. This will undoubtedly be deemed unworthy of a consideration; and the material advance which the profession has experienced on this head can only be attributed to the improvements which have been made on the former modes of stopping hæmorrhage. For the accomplishment of this desirable effect, it was formerly the custom to make use of styptics and cauteries, capable of producing the most violent operations; and, on failure of these, to employ, without reserve, a heated iron to the whole bleeding surface: these, for a time, by producing a mortification of the part, were not unfrequently successful in affording a temporary cessation of this evacuation; but the events which were subsequently produced by the separation of the sloughs, the inevitable consequence of these operations, upon the view which we now take of this subject, may be seen detailed in every page of such works as possess a faithful relation of cases in which such means were had recourse to.

Notwithstanding the daily occurrence of cases which thus met with a fatal termination, that remedy which is now employed

ployed with such unlimited success for the restraint of hæmorrhage, and the adoption of which has constituted the entire origin of all our most recent innovations and improvements in the art of operative surgery,—the adoption of which now enables the medical attendant to behold with calmness his patient, although suffering from the wound of even one of the larger arterial trunks, which has rendered the operation of amputation simple, the recovery of the patient after such an operation more capable of anticipation, and the adoption of which has caused such an operation to become unnecessary, in the cure of aneurism of arteries supplying the extremities, and has occasioned this horrid mutilation to be avoided, by the substitution of an operation but of small importance. The remedy which is capable of being so advantageously productive consists in the ligature; and, surprising as it may appear, this was insignificantly included among the numerous remedies which the ancients were accustomed to employ for the securement of bleeding vessels.

The invention of the ligature has hitherto been ascribed to the ingenuity of Ambrose Paré, and moderns are lavish in their praises of this author for having become so materially useful to the chirurgic art. The modesty with which this ingenious gentleman relates the advantages of its application, may be seen by referring to his voluminous work on this subject, wherein he seems convinced that this discovery was not the product of his talents for ingenuity, but that he became acquainted with its use by a sort of inspiration. Inspirations of this sort are by no means uncommon: we not unfrequently see starting up as new that theory or invention which was, perhaps, old and obsolete a hundred years ago; and less unfrequently do we find one author engaged in stripping the laurels from the brow of him on whom justice has bestowed them, and disgracefully attempt to appropriate to himself these *spolia minervæ*. The fact is this, Ambrose Parè is as little entitled to the merits which are due to the inventor of the ligature, as is Dr. Jenner to the discovery of vaccination; to both of whom are due praises of no inferior kind, as the promulgators of practices to the adoption of which the whole world will ever be indebted. If we take the trouble of perusing chap. 26, book v. of Celsus, entitled “*Curatio adversus profusionem sanguinis in vulneribus*,” we shall find, that, after mentioning the other usual and then superior remedies for the restraint of hæmorrhage, the following observation is carelessly made, which is sufficient to overthrow all claims which may be made by Parè to the *invention* of the ligature. “*Quod si illa*

illa quoque profluvio vincuntur; venæ, quæ sanguinem fundunt, apprehendendæ circaque id, quod ictum est, duobus locis deligandæ, intercidendæque sunt, ut et in se ipsæ coeant, et nihilominus ora præclusa habeant." From this passage it is apparent that to Ambrose Parè the profession is not indebted as the inventor of the ligature, though materially so as the first author who deservedly esteemed its application, and published to the world its advantages over all other remedies.

At the time of this important introduction into the art of surgery, and when first, by the work of Parè, it was presented to the public eye, it was not, as may be expected, so eagerly embraced by those in the habit of performing operations; but met with a considerable degree of opposition by the generality of surgeons, who valued their remedies in proportion to the cruelty of their application, and who, on this account, preferred the torturing custom of cauterizing the bleeding vessel either by powerful chemical agents, or, in some case, the actual cautery, to the mild operations of the ligature. Another cause, which, without doubt, materially attributed to the opposition which the adoption of the ligature experienced, was the unsuccessful termination of innumerable cases in which it had been used, and which, we are recently taught, was assignable to the ignorance which then prevailed with respect to the *modus operandi* of its application; in securing the orifice of the bleeding vessel. At that time it was the practice to detach the vessel from all its communications, and, what was then supposed prudent, to introduce betwixt the ligature and artery some soft substance, so as to prevent the laceration of either of the arterial coats. The former of these practices, we are now convinced, by thus insulating the artery, and depriving it of all vascular communication, cannot fail of being productive of secondary hæmorrhage, by causing the mortification, and consequent detachment, of the arterial parietes above that part to which the ligature was applied; and the latter precaution, we are now aware, was calculated to prevent the very object, by the observance of which the ligature is efficient in restraining hæmorrhage. Be it then to the honour of Dr. Jones, who first ascertained these practical desiderata, and who, by the accurate performance of experiments, also obtained a knowledge of the whole *modus operandi* of the ligature, and since whose remarks this valuable application has not only been universally adopted, but the success which has attended that adoption has been most materially advanced.

When a ligature is placed upon an artery, the first of its effects

effects is the formation of a coagulum in that part of the vessel which is nearer to the heart, and this of itself would be capable of partially resisting the flow of blood, but is immediately useful in preventing the impetus of the blood's motion falling wholly on that part of the artery encompassed by the ligature: this, however, is only an assistant appointed by Nature to the accomplishment of one great effect, viz. the complete obliteration of the arterial tube. By the application of a ligature, and to promote the successful event of its operations, it is actually necessary that the internal coat of the artery be divided, and, by that division, as vessels must inevitably be wounded, so they, in like manner with other wounded vessels, throw out coagulable lymph. As the effect of the ligature is to retain in contact the opposite divided edges of this arterial coat, by this effusion they become agglutinated, and gradually as the remaining portion of the parietes of the vessel becomes ulcerated by the pressure of the ligature, that also becomes united by the same process; and previous to the detachment of the ligature, the artery is completely divided. These are the facts which the experiments of Dr. Jones have been efficient in establishing, and from which may be derived every practical information that can be deemed necessary. But notwithstanding so much has been said on this subject, not only by the above-mentioned, but by several more recent authors, hæmorrhage subsequent to the application of ligatures on arteries is by no means an accident extinct from occurrence even at the present period: an enquiry, therefore, into the causes of such failure cannot be considered intrusive on your valuable pages.

The objects to be aimed at in the application of a ligature on an artery are as follows:

The passage of the ligature around its parietes, without detaching, in the smallest degree beyond the necessary extent, its external coat from the enveloping substance which surrounds it, and through the medium of which the proper tunics of the artery are supplied with blood. When this is accomplished, the ligature is to be tied with such a degree of firmness as is sufficient for the production of the division of the internal coat of the artery. Another and very important object to be obtained is the non-inclusion of any other substance, and allowing only the artery itself to fall within the grasp of the ligature.

These are the three important points to be observed in the use of the ligature, and the neglect of either one of which is sufficient in itself of producing all the ills arising from the accidental occurrence of secondary hæmorrhage.

The first, viz. the passage of the ligature around the parietes of the artery, without (in an extent beyond that which is absolutely necessary for its accomplishment) effecting its detachment from the enveloping substance by which it is supplied with blood, becomes advisable in compliance with the following facts. No artery is capable of supplying its own parietes with blood, but they are always supplied from a neighbouring artery, through the medium of the enveloping membrane by which they are encompassed: this fact was first ascertained by Mr. Hunter, who, without avail, endeavoured to inject the vasa vasorum of different arteries, by pouring mercury into their tubes. If, therefore, through the medium of any substance, an artery be supplied with blood, the consequences of the detachment of that substance from its external tunic, to the eyes of every person, must be obvious. We know that when the circulation through any part (which, in a natural state, is in a state of organization) ceases, mortification is the inevitable occurrence: we are also aware that the detachment of the mortified portion by the process of absorption is as inevitably the consequence of the mortification; and few there are who are not apprised that, by the detachment of any portion of the tunics of an artery in the calibre of which blood continues to circulate, hæmorrhage must be the effect.

The second becomes a very important object in the operation; for the division of the internal tunic of the artery is the *sine quâ non* of its successful termination. The division of the internal coat of the artery becomes a necessary precaution, for the same reasons that the ulcerated edges of a wound are not as capable of becoming as speedily united as those of one more recently inflicted by a sharp instrument—by the division of this coat at the time of applying the ligature, the vasa vasorum by which it receives its supply of blood are wounded, and thus, in compliance with the law which influences other vessels in the same situation, they pour out coagulable lymph. As the ligature is so applied as to make constant and equal pressure on the artery, these divided coats are retained in contact, and, in a similar manner to other recently-divided parts, become united by the first intention. If, on the other hand, the internal tunic of the artery be not, at the time of its application, divided, its division must ultimately take place by the ulcerative process occasioned by the constant pressure of the ligature; and, in this case, the ligature, instead of being effectual in retaining in contact the edges of the coat recently divided, its powers are ill bestowed, and by them the two ulcerated surfaces of arterial pariety are approximated, and the chance of union wholly destroyed;

destroyed; when, therefore, the ligature, by its pressure, has ulcerated its way through the artery, it becomes detached, and, as from the above cause no union of the edges of the arteries can possibly have taken place, hæmorrhage must ensue. Another circumstance, in the neglect of which secondary hæmorrhage must be the consequence, is the non-inclusion of any substance surrounding the artery in the embrace of the ligature. If a piece of muscle be included together with an artery in a ligature, although the diameter of the former shall materially exceed that of the latter, (if an appropriate degree of force be made use of in the application of this ligature), it is very probable that the innermost coat of the artery may be divided, and the operation so far rendered complete; for, if a piece of muscle, exactly twice the diameter of an artery, be included in a ligature, if the capability of resistance of the former doubly exceed that of the latter, an equivalency is observable, and the innermost arterial tunic will be cut prior to the inflection of any laceration on the muscle; it is not then from this cause, that, where a substance is included, together with an artery in a ligature, the unsuccessful termination of the operation is unavoidable. When, together with the artery intended to be secured, any portion of muscle or other substance be included, we will suppose (as is very probably the case,) that the innermost tunic of the artery is divided, in consequence of its inferior capability of resistance compared with that which the muscle possesses; but, as I have ascertained by experiment, although this is the case with respect to the internal coat of the artery, its external coats are capable of offering as much or even more resistance than the muscle which is included.

I included in a ligature, together with a portion of muscle, a part of the femoral artery of a subject actually dead: the diameter of the muscle three times exceeded that of the parietes of the artery, yet a small degree of force was only necessary to accomplish the division of the internal coat, such as was not sufficient to produce any laceration of the muscle itself. I now applied the same piece of muscle to another portion of the same artery, and with a similar degree of force effected the division of the internal, but no degree of force, inferior to that which was capable of dividing the muscular substance, was competent to the division of the external coats.

This experiment I have frequently repeated with little variety of result, and it is calculated to prove, that the muscular structure is capable of thrice the resistance the internal coat of the artery is enabled to exercise, whilst the degree

of resistance which is capable of being made by the external coats three times exceeds that of the internal, and is equivalent to the muscle itself. This experiment I have here introduced for the purpose of ascertaining by what process the inclusion of a portion of muscle or any other substance, is effectual in being productive of secondary hæmorrhage, and which is as follows:—

Allowing that by the application of a ligature, under such circumstances, (notwithstanding the intervention of some substance betwixt it and the external coat of the artery) its internal is divided prior to the laceration of the intervening substance, and the operation therefore not rendered incomplete on that account; if, as this experiment proves, the external coat is capable of making a resistance equal to that of the intermediate muscle, although this shall have taken place, the ulceration which the pressure of the ligature must unavoidably make, and by which its detachment must ultimately be produced, instead of beginning from within, and thus, previous to its detachment from the artery, causing its edges to unite, the capability of resistance being equal betwixt the external coats and muscle, it necessarily begins externally in the latter, and, as it proceeds, the ligature becomes loosened; till at last all pressure from the artery itself is secured, and hæmorrhage cannot fail to be the result.

The detachment of the artery from its surrounding substance to an unnecessary extent; secondly, the non-division, by its application of the internal coat; and, thirdly, the inclusion of a portion of muscle or other substance, together with the artery in a ligature,—are certainly the three principal causes of the frequent unsuccessful terminations of those cases in which the ligature has been applied. But, notwithstanding a due observance to the prevention of the occurrence of hæmorrhage from either of these causes has been rigidly enforced, and that by most skilful operators, in making use of the ligature; it will sometimes happen, that on or before its detachment, hæmorrhage will ensue. From what cause does it then happen? The presence of ossific matter in that portion of the arterial coats immediately in the embrace of the ligature, has, by some authors, been supposed not unfrequently to be the cause of secondary hæmorrhage, by preventing the union of the sides of the vessel; and, however plausible this may appear, we have undoubtedly facts on record in which such has not been considered objectionable to the application of the ligature, and no hæmorrhage has taken place; but, notwithstanding these are mentioned by creditable authors, the application of a ligature on a portion of artery thus diseased, cannot but render unsafe

unsafe the operation, and should always (if it is possible) be avoided on that account.

A certain degree of inflammation is always necessary to effect the union of two edges of a wound, and, in conformity to this law, a certain quantity is requisitely present during the union of the two divided portions of the internal coat of an artery, when a ligature has been applied, and, by the application of which, this inflammation is produced. If this degree of inflammation be nearly obtained, so as to suffer no deviation either from excess or deficiency, the agglutination of the arterial parietes will be effected; but it must be understood, that although by inflammation to this extent, the sides of the artery are united; if it is permitted to exceed this extent, the very contrary will take place. Whilst inflammation to this is existent, it is termed adhesive; but, if it be permitted to exceed this extent, instead of the adhesive, the suppurative or ulcerative stage of inflammation begins its ravages, and the consequences of ulceration in the present instance must be evident. Subsequent to the application of a ligature upon an artery, all inflammatory action in the constitution at large should be most carefully and speedily reduced, since the small degree of inflammation which is requisitely excited in the artery itself cannot be expected at all to affect the system, although capable of suffering a degree of diminution from constitutional treatment; and bleeding, if necessary, should not be, on this account, avoided. The consequence of allowing the extent of the inflammation to exceed that which is requisite for the promotion of the adhesion of the arterial parietes, and thus allowing the ulcerative or suppurative stage to commence is, without doubt, sometimes the cause of hæmorrhage, and the deficiency of inflammation to the necessary extent, from an indolency of habit in the patient, may be productive of the same effect; but there still exists another cause to which this accident, I am persuaded, may be, in the greater number of instances, attributed.

The number of accidents of this kind, which take place subsequently to the operations of amputation, (notwithstanding the plurality of arteries to be by the ligature secured in this case, and the unfavourable circumstances under which this operation is sometimes undertaken,) is not more than once to every third time, proportionally, that hæmorrhage follows the application of ligatures on arteries in the operation for the cure of aneurisms. Did this accident arise from the unnecessary detachment of the artery, from the non-division of its internal coat, from the inclusion of a portion
of

of muscle, together with the artery in the ligature, from the presence of its ossific nature in the parietes of the vessel, from a deficiency of inflammation not constituting the adhesive, or from an excess of inflammatory action extending it to the suppurative stage? the proportionate number of cases would be equal, since either of these causes would be equally capable of taking place in cases of amputation as in those in which arteries are tied for the cure of aneurism. It is clear, therefore, that hæmorrhage sometimes follows the application of ligatures on arteries to the latter effect, independent of the operations of either of the above-mentioned causes.

The only deviation which can possibly be made, with respect to the artery in either of these operations, consists in the method by which the ligature is conveyed around the artery to be secured, and it is therefore reasonable to suppose that it is in some accidental circumstance which takes place in this conveyance which is productive of so alarming an event.

The mode in which ligatures are applied to bleeding arteries after amputation, cannot but be known to every one of the medical profession; and the only precaution which is necessary to be observed, is the non-detachment of its coats by extending it too much by the forceps; but, as the artery will suffer a considerable degree of extension without denuding its external coat from the cellular vascular substance which surrounds it, in consequence of the elasticity which the latter is capable of exercising, this, even, is seldom capable of producing subsequent inconvenience in the occurrence of hæmorrhage. When, however, the femoral artery, or any other which is necessary to be tied for the cure of aneurism, is about to have a ligature passed around it, this cannot be done without an instrument, and here we arrive at the cause of all the mischief. The instruments which are constructed for this purpose, and which are in pretty general use, are termed aneurismal needles; they are of different sizes and shapes, but the greater number of them calculated to be productive of the most serious consequences. As every, even the smallest, portion of an artery is liable to become disorganized and in a state of mortification, from the denudation of its coats, it would seem advisable never to employ any instrument which exceeded in size the ligature itself, to effect its passage around the artery; since, in this case, no part of the vessel could be denuded but that which was immediately encompassed by the ligature, and, consequently, no part could become in the above state, excepting that,

that, the ulceration of which is a desideratum. On the other hand, aneurismal needles of this shape are not uncommon.



The distance, which in general is observed betwixt *a* and *b*, is, on a moderate scale, not less than three-quarters of an inch, whilst, from the numerous advantages which accrue from the application of extremely fine ligatures, the ligature does not exceed in diameter one-twentieth of the same space; consequently, three-quarters of an inch of the artery is denuded, whilst the ligature in the mid-space embraces only one-twentieth part of that which is denuded; and, therefore, the artery is detached to twenty times the extent which is necessary for completion of the operation, though not more than is sufficient to admit of the passage of this awkward instrument. There are many other contrivances for the passage of a ligature around an artery, some of which I confess, are not so well calculated to produce a mortification of a portion of the coats of the vessel and the subsequent hæmorrhage; but, whilst there are many adapted less artfully to this purpose, I may, with safety say, there are others of much worse construction.

January 28, 1816.

For the London Medical and Physical Journal,

Case of Polydipsia; by JOHN WARE, Esq.

THE subject of the following account is a young man, named James Webb, now living in the town of Hingham, in this state. Having been informed of his singular case, I went in company with Mr. Norton, Librarian of Harvard University, to ascertain its nature and the truth of the circumstances related concerning him. During our visit, the following facts were collected from his own account of himself, which were confirmed by the testimony of the persons with whom he now lives, and, as will be presently stated more particularly, by that of others with whom he has formerly lived.

He was twenty years of age some time in the month of

October, 1814. His appearance is that of firm health; his complexion is dark and ruddy; he is short, thick, rather sturdy, and, except his preternatural thirst, has never been afflicted with disease. At present, the quantity which he habitually drinks in twenty-four hours, amounts to three pailsful, or six gallons. This is necessary, not only to prevent the sensation of a tormenting thirst, but to preserve him in his ordinary state of health; for, when he abstains from his usual allowance, his head is affected and he becomes dizzy, weak, and sick; or, as he himself expressed it:—“When I don't drink, it gets into my head.” He finds himself obliged to drink at intervals of about an hour and an half, or two hours, one or two quarts at a time. At night he places a pailful of water at his bedside, the whole of which he requires before morning, waking whenever it becomes necessary. He has sometimes taken to the amount of a gallon at once, without experiencing any bad effects. He drank two quarts in our presence, having taken one but fifteen minutes before. He swallows with great eagerness and the appearance of satisfaction, drinking a quart in the time that a common person would a quarter of that quantity. He uses water directly from the well, even in the depth of winter, and avoids mixing any thing with it, especially any kind of spirituous liquors, which he dislikes. Its coldness causes no inconvenience, except occasionally a slight chill. He has no recollection of the time when this habit commenced, but has been told by his parents that it was in infancy and soon after birth. The quantity which he now drinks, does not, he thinks, differ materially from that which he drank at nine or ten years old. He has several times endeavoured to break off the habit, but has always suffered from the attempt in the manner above mentioned. His appetite for food is not remarkable: the persons with whom he lives merely observing, that he was a hearty eater. His meat and drink at meals are like those of the persons with whom he lives. His pulse during our visit, was full, strong, and remarkably infrequent, not exceeding, at any time, fifty-six pulsations in a minute, and being sometimes so few as forty-five. It varied as follows:—

Some time after drinking, fifty-six.

Fifteen minutes after drinking, and just before drinking again, fifty.

Immediately after drinking two quarts, forty-five.

The temperature of the atmosphere has no influence on his thirst, since he requires the same quantity of water in the warmest, as in the coldest weather. He had an uncle who was formerly affected in the same way, although not to an equal

equal degree. He served in the army during the revolutionary war, and was said to have died in consequence of being in a situation where water was not to be obtained.

As would be supposed, these extraordinary quantities of fluid are wholly carried off by the kidneys, and affect the secretion of no other part. His urine, he thinks, equal in quantity to the whole of the water which he drinks. The qualities of the secreted fluid, I had no opportunity of examining. He perspires very little, and his fæces are of the usual healthy consistence.

This account is confirmed by Messrs. Wilder and Hersey, two persons with whom he formerly resided. With Mr. Wilder, he lived some time at about the age of nine or ten years, and his relation agrees with that of Webb in every particular, especially as to the quantity of water drank during twenty-four hours.

With Mr. Hersey, Webb lived from fourteen to eighteen years of age. He thinks that the quantity increased while he was with him, and feels confident, that during the latter part of the time he drank as much as four pailsful, or eight gallons, daily, and has known him to drink a gallon at a time. He never knew him suffer from want of water but once, when away from home where none was to be obtained; he looked pale and said he could not live ten minutes longer, but was immediately relieved by drinking. He used to shudder for ten or fifteen minutes after drinking, so that his teeth would chatter. His health and appetite were good. He used no spirit. Mr. Hersey says, that he has understood from the person with whom he lives now, that the quantity has diminished since Webb has been with him.

In the second and third volumes of *A Collection of Medical Facts*, published in London in 1792, are accounts of three cases similar to that above detailed, of which, for the sake of comparison, it may be worth while to subjoin a short notice. The first was that of Catharine Bousergent, a French woman, forty years of age. The disease had existed from infancy. When single she drank three pailsful daily; but after marriage, when pregnant, only two. The quantity was stated by others to be sometimes four pailsful.

The second case was that of a man, in England, aged fifty-one. The disease had existed twenty-three years, and came on after a long continued fever and ague. The quantity he drank amounted to sixteen or seventeen quarts daily.

The third subject was a boy of five years; his pulse from eighty to eighty-five. His daily quantity amounted to about ten quarts.—*New-England Journal*.

For the *London Medical and Physical Journal*.

Dr. WALKER on Mr. Taunton's Indictment, with the Editor's Remarks.

YOUR account of the case of "King versus Taunton," page 68, was to me extremely satisfactory, inasmuch as it afforded the solution of an important question in medical jurisprudence, viz. how far we are obliged to attempt to prevent the spreading of contagion on occasions where the laws of quarantine do not apply. I was one of the witnesses, all medical, subpoenaed by the defendant as exculpatory evidence, ready to prove that he had been, from the first, a supporter of vaccination, ere some members of the Government Institution were yet converted. (*Par parenthese*, allow me to observe, our summons had been served with a shilling; and we repaired to court under the hope of defeating a conspiracy; while the witnesses on the part of the prosecution received each his guinea, together with his summons.) The plaintiff's witnesses did not appear in court. Had the National Vaccine Establishment again felt themselves drawn into a scrape, now in the Court of King's Bench, as before in the House of Lords (vol. xxxiv. p. 368), by their secretary? and on that account did the Attorney-General, 'on the behalf of his client,' page 68, 'make the most polite retreat in his power?' One reflection I cannot help drawing from the language of the Attorney-General, which had struck me with astonishment in court. A British subject stands accused of a misdemeanor, *quelconquè*—a bill is found against him by a jury of his countrymen—the fact is notorious—the culprit falls under suspicion; yet the plaintiff in the case takes upon him to stop proceedings. He hazards, in the *interim*, the public safety, if the culprit be a criminal; or may injure his reputation if innocent, by withholding from him the opportunity of proving that he is so. Verily, the laws of our country, the best, perhaps, in Europe, ought not thus to be sported with. While a plaintiff, without consent of defendant, can step in between the two juries of his country, and arrest the progress of the law, depend on it there is yet 'something rotten in the state of Denmark.'

Jan. 1816.

P.S.—If you really wish to show your impartiality, as you profess in your *Journal*, now lying before me (Library of the London Institution, 6, ii, 1816), and are much obliged to your correspondent, you will also admit this *coup de plume*, not anonymous, and, perhaps,

Mr. Norman's *Inquiry concerning Cold Water in Gout.* 203

perhaps, also the information that this is the third time I have been dragged by subpoena into court, from my daily business of vaccination, through this same troublesome agent of mischief, on all of which occasions he had been accuser or instigator of accusation, and on all of which occasions he had been baffled by 'dismissal, or, as he is so tenacious for *literal* accuracy, by 'the standing' over of the case;' and all the cases have been equally troublesome and vexatious.

The powerful calls on our impartiality in the above paper, which may be entitled *Walker v. Murray*, in the matter of the *King v. Taunton*, have induced us to protract the subject thus far; but we trust it will end here. With this view, we subjoin the following report from the Small-Pox Hospital, bearing somewhat on the question, and we hope tending to satisfy all parties.—EDIT.

A meeting was held during the current month by the governors of the Small-Pox Hospital, to consider whether the practice of inoculation should be entirely discontinued at that house. The principal argument in favour of the proposition was, that to continue inoculation at such an establishment, even though confined to patients in the house, would be to sanction a practice which ought to be exploded. On the other side it was urged, that according to the opinions of the learned judges and the attorney-general, there is nothing illegal in inoculation if the patient is not exposed to the public, that already the numbers inoculated at the hospital were greatly reduced, and those vaccinated increased in a greater proportion. That whilst the rich can always inoculate and seclude themselves from the public, the poor from their confined dwellings have not the same advantage; that the hospital is a means of lessening that jealousy which the poor might otherwise feel, and from the last report (see our preceding journal) there is every reason to believe that inoculation would fall into disuse the sooner from being left to itself. The governors, therefore, decided to make no alteration in the present practice, and that inoculation should be still continued to in-patients.

To the Editors of the London Medical and Physical Journal,

GENTLEMEN,

I BEG leave, through the medium of your next Number, to request those of my professional brethren who have witnessed the topical application of cold in gouty inflammation, to favour me, at their earliest opportunity, with their observations thereon, addressed to me at Langport.

I have the honour to be,

Gentlemen,

Your very obedient servant,

WILLIAM NORMAN.

Langport, Somerset,

February 10, 1816.

COLLECTANEA MEDICA,

CONSISTING OF
 ANECDOTES, FACTS, EXTRACTS, ILLUSTRATIONS,
 QUERIES, SUGGESTIONS, &c.

RELATING TO THE
History or the Art of Medicine, and the Auxiliary Sciences,

Quicquid agunt medici,
 Nostri farrago libelli.

MEMOIRS OF THE LATE J. C. LETTSOM, M.D. F.R.S.
 &c. &c. &c.

(From Mr. Pettigrew's Eulogy, delivered before the London Philosophical Society, in the presence of his Royal Highness the Duke of Kent, &c. &c. &c.)

JOHAN COAKLEY LETTSOM, one of twins, was born in December 1744, in a small island called little Van Dyke, near Tortola, within the verge of the tropics. His ancestors, on the father's side, originated from Letsom, or, as it is called in Domesday-book, Ledsom, a small village in Cheshire; on the mother's side, they are lineally descended from Sir Cæsar Coakley, an Irish Baronet, whose family for many years possessed a seat in the parliament of that kingdom, the last of whom was Sir Vesey Coakley.

At the age of six years he was sent to England for his education, and was placed under the protection of Mr. Fothergill, a celebrated preacher in the Society of Friends, and brother to the late Dr. John Fothergill, who afterwards became his patron. By the former he was entrusted to the care of Mr. (afterwards Dr.) Sutcliff, a name which was never mentioned by Dr. Lettsom but with expressions of gratitude for his friendly attention. After serving the stated time of his apprenticeship, he entered at St. Thomas's Hospital as a dresser. In this situation, the diligence that in after-life so particularly characterized him was productive of several advantages; for many of his fellow students, less careful to obtain the necessary information upon which they are destined to act in their arduous profession, led away by the follies of the day, and more attentive to the seductive allurements of the billiard room, the coffee house, and the theatre, used to entrust their proportion of patients to him, who, by attentive observation, was enabled to enlarge the boundaries of medical science, and to alleviate the miseries of the indigent sufferers.

After two years' study and practice in the hospital, he returned to his native soil, to take possession of the property which came to him by the death of his father, and elder brother, who left very little of the family estate to be inherited by him, except a number of negro slaves, whom, to his eternal honour be it pronounced, he immediately emancipated.

At Tortola he settled as a medical practitioner, and by his attention soon obtained an excellent practice, that tempted him to visit the celebrated schools of Paris, Edinburgh, and Leyden, at the last of which universities, on the 20th of June, 1769, he took his degree of M.D. His Thesis was entitled, "Observationes ad Vires Theæ Pertinentes," and was inscribed to Dr. John Fothergill, Mr. Samuel Fothergill, and Dr. Abraham Sutcliff.

After this circuit in pursuit of knowledge, he returned to London, and, under the protection of Dr. Fothergill, commenced practice:—this was in 1769, when he was admitted a licentiate of the Royal College of Physicians, at the head of the list of which his name lately appeared. In 1770, he was elected a fellow of the Society of Antiquaries, and in the following year a fellow of the Royal Society. He also became a fellow of the Linneæan Society.

Many of the charitable institutions in the metropolis originated with himself, and, of those that were planned by others, most received from him considerable improvement, and all his active support. His subsequent marriage with an amiable woman, (still living, and deeply lamenting her irreparable loss) and the addition of a considerable fortune by that marriage, enlarged the means of doing good, nor did the necessary attention to the interests and happiness of a numerous family, (of whom three only are now surviving) the result of that marriage, permit his zeal in the cause of philanthropy to cool, or restrain the current, in very arduous times, of a well-directed liberality. He has, in many instances, fostered genius, cherished science, and expanded the circle of the arts, in periods of individual and national distress, unprecedented in the annals of this country; and his purse, equally with his pen, has been devoted to their cause. Medicine and Botany have been particularly indebted to his zealous researches; foreigners of talents and merit ever found an hospitable reception under his roof; and he constantly kept up a correspondence with the literati of the first eminence, both throughout Europe and America.

Professional men of great practice and popularity, and especially physicians, have more abundant opportunities of becoming useful members of the grand community of mankind, than any other class or order of persons whatsoever. And if, as in the case under our immediate consideration, to great medical practice is added a due proportion of philanthropy, neither the legislator who protects our persons and our property, nor the divine to whom is committed the sacred charge of what is more valuable than the most valued of our worldly possessions, hath so many occasions of administering to the health and the sickness, the strength and weakness of our bodies and our minds.

The talents essentially necessary to this important office, as an excellent author* has remarked, are so extensive, that an accom-

* Wallis.

plished physician must have his mind stored with ample materials for the enlargement of his understanding, be led to a diversified cultivation of the polite arts and sciences, conducive to elegance of manners and refined sentiments, and inured to that laborious application, by which distinguished abilities are rendered peculiarly beneficial to mankind.

Dr. Lettsom always considered it to be amongst the foremost of his duties to console the mind, as well as relieve the person of his patient; and, although a press of daily practice made it necessary that he should set a just value on time, he was never governed by the stop watch, to hurry away from the invalid whom he believed might be as much assisted by his society as by his prescriptions. On the contrary, it was his constant practice, (a practice it has often afforded me exquisite delight to witness,) to solace and cheer, by the prevailing aids of gentle and encouraging conversation, as much as by medicine; and he has been known to devote many of those hours necessary to his own repose, to quiet the throbbing pulse, and dispose the wakeful eye of his patient to that sleep, which indeed "ministers to a mind diseased," and so often really "knits up the ravelled sleeve of care."

Among the charitable institutions originated by Dr. Lettsom, or to which he belonged, may be enumerated the General, the Finsbury, and Surry Dispensaries, and the General Sea-Bathing Infirmary near Margate. He was one of the first members of the Philanthropic Society, St. George's Fields, and to the Society for the Discharge and Relief of Persons imprisoned for Small Debts, to the Asylum for the Support and Education of the Indigent Deaf and Dumb, and to the Institution for the Relief and Employment of the Indigent Blind, as well as to several other charitable institutions he was a great contributor. He was one of the celebrated thirty-two who associated with the late Dr. Hawes, and my friend Dr. Cogan, (the author of the elegant Treatise on the Passions,) to support the Royal Humane Society for the Recovery of the Apparently Drowned or Dead.

The Medical Society of London, instituted in 1773, for the promotion of Medical Science, is greatly indebted to our late president. He not only contributed to the increase of its valuable communications, but he also generously presented the society with the house it now occupies. He may, indeed, truly be considered as its father, and liberally he supported it. The library, (which, as a medical one, is, perhaps, for works of reference, the most valuable in the country,) is composed of many rare works presented by him. The society have paid their tribute of respect and gratitude by unanimously adopting the following resolutions:—

"That the Society receive the account of the decease of their late much valued associate with feelings of deep regret for his loss—of unfeigned respect for his memory—and of gratitude for the numerous services rendered by him to the society.

"That the above Resolution be entered in the Minutes and
" subscribed

scribed by the president, and that a copy be transmitted to his son, Mr. Samuel Lettson."

Dr. Lettson's works of a professional and philanthropic nature are very numerous. On this occasion I shall enumerate only the most important:

1. Reflections on the general Treatment and Cure of Fevers; 8vo. 1772.
2. The Natural History of the Tea Tree, with Observations on the Medical Qualities of Tea, and Effects of Tea Drinking, 4to. 1772.
3. Medical Memoirs of the General Dispensary in London, 8vo. 1774.
4. Improvement of Medicine in London, on the Basis of Public Good, 8vo. 1775.
5. History of the Origin of Medicine, and of the State of Physic prior to the Trojan War. An Oration delivered before the Medical Society, London, 4to. 1778.
6. Hints designed to promote Beneficence, Temperance, and Medical Science, 3 vols. 8vo.
7. An Edition of the Works of J. Fothergill, M.D. in 3 vols. 8vo.
8. A Life of Dr. J. Fothergill, 8vo.
9. The Naturalist's and Traveller's Companion, 8vo. an enlarged edition of which I have, for some time, been engaged in preparing for publication.

His work on the Cow Pock, of which important practice he was an ardent and successful advocate, deserves also to be noticed, and his exposition and conquest of the renowned Mayersbach must also be mentioned. Besides these works, in the Transactions of the Royal Society, of the Medical Society, of the Bath Society, he published many important papers, principally on medical subjects. The chief of his public philanthropic labours were made known to the world through the medium of the Gentleman's Magazine, in which may be found a great number of letters relating to the prisons of the metropolis and various parts of the country.

As a proof of the respect entertained of his various literary labours, it may be observed, that he belonged to no less than sixteen universities. Besides the titles already enumerated, he was a fellow of the Horticultural Society, a fellow of the Medical Society, physician-extraordinary of the City of London Lying-in Hospital, and of the General and Finsbury Dispensaries, a doctor of laws, Cambridge, Massachusetts; honorary member of the Philosophical Societies of Philadelphia, Manchester, and Preston; of the Agricultural Society, Bath; and of the Academy of Sciences, Montpellier. Of the Medical Society he was for several years president. He was a vice-president of a great number of charitable institutions.

The character of a man is, perhaps, best inferred from the general

ral tendency of his writings; those of Dr. Lettson were uniformly philanthropic; every page had for its object, the public good and the elevation of the human character, by the recommendation of the performance of benevolent actions towards the relief of the indigent and sick.

I cannot refrain from introducing to your notice the account of the reclaimed highwayman.

“It was my lot,” says the doctor, “a few years ago, to be attacked on the highway by a genteel looking person, well-mounted, who demanded my money, at the same time placing a pistol to my breast; I requested him to remove the pistol, which he instantly did; I saw his agitation, from whence I concluded he had not been habituated to this hazardous practice; and I added, that I had both gold and silver about me, which I freely gave him; but that I was sorry to see a young gentleman risk his life in so unbecoming a manner, which would probably soon terminate at the gallows; that, at the best, the casual pittance gained on the highway would afford but a precarious and temporary subsistence, but that if I could serve him by a private assistance more becoming his appearance, he might further command my purse; and at the same time I desired him to accept a card containing my address, and to call upon me, as he might trust to my word for his liberty and life. He accepted my address, but I observed his voice faltered; it was late at night; there was, however, (continues the doctor,) sufficient star-light to enable me to perceive, as I leaned towards him on the window of my carriage, that his bosom was overwhelmed with conflicting passions; at length, bending forward on his horse, and recovering the power of speech, he affectingly said, ‘I thank you for your offer,—American affairs have ruined me,—I will, dear sir, wait upon you.’” Two weeks afterwards, a person entered the doctor’s house, whom he instantly recognized to be this highwayman: “I come, (said he,) to communicate to you a matter that nearly concerns me, and I trust to your honour to keep it inviolable.” The good man told him he recollected him, and requested he would relate his history with candour, as the most effectual means of securing his services; and such was the narrative, as would have excited sympathy in every heart. His fortunes had been spoiled on the American continent, and after a long imprisonment, he escaped to this asylum of liberty, where, his resources failing, and perhaps with pride above the occupation of a sturdy beggar, he rashly ventured upon the most dreadful alternative of the highway, where, in his second attempt, he met with our late president, who finding his narrative literally true, was induced to try various means of obviating his distresses. Dr. Lettson made application to the commissioners for relieving the American sufferers, but without success; at length, a memorial was presented to the queen, briefly stating his sufferings and the cause of them. Struck with his appearance, pleased with his address, and generously sympathizing with his distresses, her Majesty graciously assured him of patronage, provided his pretensions

sions should, on enquiry, be found correct. The result was that in a few days he received a commission in the army, and by his public services, twice did his name appear in the Gazette, among the promotions. After some years of employment in the service of his sovereign, this valuable officer fell a victim to the yellow fever, in the West Indies.

Any observations I could make on conduct like this would be useless—I leave it to your own reflections.

[What follows relates principally to Dr. Lettsom's connection with the London Philosophical Society; after which we have the history of his last illness and death.]

The most painful part of my task now commences—a recital of the circumstances connected with the dissolution of our beloved president. For some time past he had been attending a gentleman professionally—the case proved fatal, and Dr. Lettsom was desirous that the body should be examined; this was chiefly performed by the doctor himself, on the 22d of October. He remained in a cold room for two hours, after which he felt chilly and unwell, but not sufficiently so to excite much alarm. On the 25th I received a note from him, requesting to see me, stating that he had not been ill for twenty-seven years before, that he now had a slight fever, from which he expected to recover in a few days, and that he was fearful it would not be prudent for him to attend the society on the morrow.

On the 26th I visited him, and, alas! found him labouring under a strong rigor—(a severe cold shivering fit) indicative of approaching fever, and complaining of great soreness of his arms, which he considered to be rheumatic. I immediately urged the necessity for great care, and requested he would see his friend, Dr. Babington. He, however, observed that he should be better in a few days, and that he wished for no one to attend him. At that time he had a poor patient resident in White-cross-street, whom he was determined to visit, against which his friends strongly contended, but fruitlessly. He went out (this was on the 27th) and returned literally unable to get out of his carriage, and suffering the most acute pain upon any attempt to be assisted. In the evening he was visited by his friends Dr. Babington and Mr. Norris, and was confined to his room. The next day his disease assumed a more distinct character, and he was unable to move in his bed without assistance, sustaining, with the greatest fortitude, the most excruciating pain. In this situation, his anxiety for his patients was unabated—he requested me to visit them, and was eager to know the progress of their diseases. Perpetual enquiry was directed to this society, and respecting the arrangements for the approaching anniversary, which he was so interested concerning, that he said, provided he was only able to sit, and not even to speak, on that occasion, he would attend it.

On the 30th he appeared improved, but on the 31st great debility came on, attended with slight delirium, which terminated his valuable existence on Wednesday the 1st of November, between

three and four o'clock in the morning, without a groan. Thus tranquilly terminated the existence of our much-loved associate and president!

His remains were interred in the Friends' Burial Ground, Little Coleman-street, Bunhill-row, on Tuesday the 7th of November.

Having in a former Number, under this division of our labours, given some account of a case of Elephantiasis in St. Bartholomew's Hospital, we shall transcribe a description of the same from two documents; they have appeared before the public. The first is from the Transactions of the Medico-Chirurgical Society, in which also another case is inserted; the second from the Medical Transactions of the Royal College of Physicians of London.

“*Two Cases of the True Elephantiasis, or Lepra Arabum.* By WILLIAM LAWRENCE, Esq. F.R.S. Professor of Anatomy and Surgery to the Royal College of Surgeons, &c. &c.; and H. H. SOUTHEY, M. D. Physician to the Middlesex Hospital.

“The tubercular elephantiasis has been so seldom seen in England, that no case of it had occurred under the observation of my friend Dr. Bateman, when he published his practical Synopsis, a work highly honourable to the medical literature of this country, and constituting an important æra in the cutaneous department of nosology. Having stated to the society, in conversation, some particulars concerning a boy in St. Bartholomew's Hospital, whose case presented the uncommon circumstances of elephantiasis occurring in an individual of English parentage, almost beginning in England, and going through its various stages to an apparent cure in this country; and concerning a female patient under the care of Dr. Southey, whom I had twice seen, I was requested by the president to procure for the society a written account of the disease, as it appeared in these cases. The following narratives have been drawn up by Dr. Southey and myself, in compliance with this request.

“CASE I.—Charles Uncle, aged 14, of a dark complexion, with brown hair and dark iris, was admitted into St. Bartholomew's Hospital on the 1st of April, 1814. From himself and his grandmother I learned the following circumstances of his history. His father and the whole of his father's family were English: his mother was born in America, of English parents. They married in England very young, went to settle in America, and had three children born at Augusta, in the United States. The eldest boy and a girl were sent to England young; neither of them ever had any cutaneous complaint. The boy is now alive and in good health; the girl died at the age of sixteen, of consumption after measles. Charles, the youngest child, having lost his father, was removed in early infancy to New Providence in the Bahama Islands, where he lived till the year 1813. He was obliged by his father-in-law to work hard in the open air, exposed to the weather
and

and particularly to the heat of the sun, receiving a sufficient quantity of food, which he described as being of a coarse kind, the same that was given to the negroes. Among the latter, or among the white inhabitants of New Providence, (which is a sea-port,) he never remembers having seen any complaint like his own. In the autumn of 1813 he left New Providence, in perfect health, for England. Being obliged to work in the ship during his passage, he became on one occasion extremely wet, and took a violent cold. He felt himself ill and very drowsy, but his appetite did not fail. In a short time his head and face swelled prodigiously: this swelling gradually subsided, he felt himself better, and tubercles of the skin began to appear in the ears and face; a stiffness of the limbs came on at the same time, and has continued ever since. He arrived in England in the autumn of 1813. The disease, which began in the head, had appeared in various parts of the upper and lower limbs by the month of April, 1814, when he was received into St. Bartholomew's Hospital; but the trunk has always been completely free.

“ The disease has every where begun with flattened tubercular elevations of the skin, not larger than half a small pea at first, but increasing afterwards, in some parts to a much more considerable size. Their colour and consistence hardly differed, at their first production, from those of the sound skin; but they soon became red, and acquired in some instances a deep tint of that colour, with a rather livid cast. In some parts they remained in this state: in others an abundance of white and small scales was formed. Some of the tubercles cracked and ulcerated; but the ulcerations were not in general deep or extensive: they furnished a matter which concreted into hard crusts, and caused the dressings to stick very firmly.

“ The progress of the complaint was not attended with pain, except from these fissures and ulcerations.

“ At the time of his admission into the hospital, this boy's ears, forehead, eyebrows and eyelids, and indeed the whole face, were completely occupied by the disease. The ears and other features were greatly deformed: the former exhibited some of the largest and reddest tubercles, and had suffered the greatest alteration of figure. The nose was flattened and expanded laterally; the lips and cheeks swollen; the hair of the eyebrows dropped off; but although the eyelids were tuberculated, even on their edges, the cilia have not been lost. The hairy scalp was never affected, nor has its hair fallen off. The membrane of the palate and the velum palati were tuberculated, but never, I believe, ulcerated; nor was swallowing impeded. There was no reason to suppose that the bones or membranous lining of the nose participated in the disease. The voice was rather rough and hoarse. The fingers, hands, and wrists, particularly the backs of them, were occupied by numerous tubercles, which reached for a short distance on the fore-arms. A small crop occupied the anterior convexity of the shoulder on each side. The toes and feet were swelled altogether; the under sur-

face red and tubercular. The back of the foot and ankle were affected, and a few scattered tubercles appeared on the thighs.

“Whether there was any unnatural fulness in the upper and anterior part of the thigh might be doubted; but certainly there was no decided swelling in the situation of the femoral tumour, described by Dr. Adams, in the cases of elephantiasis, observed by him on the island of Madeira. The boy was not aware that any change had occurred in this part, or that it was at all enlarged; and at present there is not the slightest appearance of any swelling. An inguinal gland on each side was rather more distinct than usual.

“The condition of the generative organs corresponded with the description of Dr. Adams just alluded to. Not only had their development been arrested from the time when the disease broke out, but they had actually undergone diminution and decay. The scrotum was shrivelled and seemed empty; the testes could with difficulty be felt; they were soft and about the size of small horse-beans.

“His general health was hardly affected, the appetite being good, the tongue clean, the functions of the bowels regularly performed; and he slept well.

“During the first part of his residence in the hospital the disease advanced. New tubercles appeared on the ears, face, and hands; the two former parts became greatly swollen, and occupied by painful ulcerations. The incrustations of the discharge occasioned difficulty and pain in the motions of speaking and eating. The ulcerations in the face were never deep: they healed in one part and broke out in another. A few deeper ulcers formed at one time on the wrist; they appeared as if a piece of the skin had been dug out, leaving a smooth red surface.

“Of local applications, mild ointments and emollient poultices were the most beneficial, particularly when there was any irritation or inflammation. By loosening the crusts, and softening the parts, they gave ease.

“Various internal means were employed, as mercury, antimony, and arsenic. They disturbed his health, which seemed to aggravate the complaint: this was particularly the case with arsenic. When he left it off, and took sulphuric and nitric acids, he was evidently relieved. Medicines were so obviously inefficacious, to say the least, that attempts at cure by means of the *materia medica* were not continued; and there is no ground for ascribing the modification which the complaint afterwards underwent to its agency. He took acids and tonics for some time, and such occasional remedies as circumstances required. He was allowed a full diet of meat, porter, and wine.

“He had a very well marked attack of shingles, (*herpes zoster*), accompanied by the usual feverish symptoms, which confined him to bed for a few days. The vesicles extended from the *linea alba* to the spine, on one side of the abdomen, and were numerous and confluent.

continent. He also went through the measles, which he contracted from a patient in the same ward: the disorder was mild.

“The elephantiasis having been for some time stationary, began to decline about the end of December: the ulcerations healed, all the tubercles lessened, and at last disappeared, and the patient was discharged from the hospital on the 2d of February, 1815. There was at this time no trace of tubercles in the face; but it presented cicatrices, the remains of the ulcerations. The skin had become smooth and soft, excepting so far as its surface was irregular from the scars, and had recovered its natural colour. The features are of course permanently deformed, the lips in particular contracted and turned in, so as to narrow the opening of the mouth; and the cuticle continues to separate from them in dry flakes. Vestiges of the tubercles are visible on the palate and throat, but the uvula is entire. The ears are still thickened and swoln, though much reduced from their former size. The tubercles have disappeared from the extremities, leaving however some cicatrices and roughness of the skin. The toes and soles of the feet are still unnaturally red and swoln, and the legs are altogether tumid, and cedematous towards the lower parts; some indurations are felt in them under the skin.

“While this amendment has proceeded on the outside, there is reason to fear that some internal organs have become affected. As the tubercles have disappeared, a cough has arisen, which is now troublesome.

“The boy is short-breathed and weak, and his pulse is from 110 to 120. He is also much emaciated. The generative organs continue in the state described.

“Charles Uncle went from St. Bartholomew’s Hospital to Brompton, where I saw him, after a short interval, labouring under the symptoms of pulmonary affection already mentioned to a considerable degree, and indulging freely in the use of portery meat, &c. with the view of restoring his strength. I recommended a change of diet, and that he should immediately go into Devonshire, where some of his relations resided. The following is part of a letter from him, dated the 9th of May. ‘My bodily health is much improved with respect to strength and eye sight; but I have within a week broken out in three or four places about my face, which I think is merely change of climate. It does not bear the same appearance with the old complaint, as it looks raw when the scabs fall off. I am, according to your advice, placed at a farm-house, where I am comfortable. I amuse myself with shooting, and fishing, and reading.’ By a letter from his mother, of the 22d of June, I understand that his face continued very bad at that time, and I was informed at the end of August that it was still broken out, although his health and strength were considerably mended. His brother died of consumption about this time.”

“*Case II.* By Dr. SOUTHEY.

“In January 1814, I was first requested, by my friend Mr. Ashburner,

Ashburner, to visit a patient of his afflicted with elephantiasis. Of the nature of the complaint no doubt could be entertained, as the symptoms were too strongly marked to be mistaken; and many eminent practitioners both in England and India had agreed in the name, though they had not succeeded in removing the disease.

“Miss R—— is at present twenty-two years of age, she is a native of Bombay, the daughter of an English officer, by a Hindoo woman. When about ten years old, red blotches appeared upon different parts of her body, which by mercurial medicines and other remedies were removed for a time, but recurred at intervals during several years. The elbow and the foot were the parts first attacked by the tubercular disease, which has now existed above five years. These tubercles vary in size, are of a livid colour, and the skin is thickened in their vicinity (indeed upon the feet and hands this thickening of the skin seems to precede their formation): they enlarge gradually with little or no pain, and suppurate. The ulcers thus formed spread along the integuments, laying bare the muscles. The edges of the ulcers are in general high, callous, and jagged. The hands, arms, and legs, are at present nearly covered with ulcerations of this description. The face is also horribly disfigured: the eye-brows have their former situation marked by lines of scurf. The eye-lids are livid and tuberculated, but some few eye-lashes still remain. The *alæ nasi* are thickened, and the nose quite flat. Dry black crusts, open ulcers, or tubercles advancing to suppuration, cover nearly the whole face. The ears have that thickening of the lobe peculiar to this disease, and are otherwise enlarged and altered in shape. The lips and tongue are studded with small tubercles, and the tonsils commonly more or less ulcerated. A part of the uvula has disappeared. The voice is hoarse. Small tubercles have also formed on the tunica conjunctiva, one so near the edge of the transparent cornea as to have occasioned an opacity of that membrane, and the left eye is beginning to suffer in a similar manner. The trunk is not affected. All the ulcers have at different times been healed, but fresh tubercles constantly form, and go through the same process. According to the state of the general health, the existing ulcers either spread or put forth healthy granulations. The pulse is always quick, varying from 100 to 120. The appetite is weak and the digestive organs torpid, constant purgatives being required. The menstrual discharge is said to have been tolerably regular in point of time; but it was found by Mr. Ashburner to coagulate upon exposure to air. With regard to the *libido inextinguibilis*, or the absence of sexual passion; it may be proper to state, that an offer of marriage was made to this unfortunate female within the last two years, which she was inclined to accept. I have not ascertained the presence of the femoral tumour, but I understand that Dr. Adams upon examination found this mark of the disease on the left thigh. The breasts have disappeared. Among the many unsuccessful remedies which have been tried in this case, acids and alkalies, vegetable and mineral tonics, arsenic, dulcamara and sarsaparilla may

be mentioned. From some combinations of antimony and mercury, particularly that of pulvis antimonalis with the blue pill, temporary advantage seems to have been derived. Of the local remedies, the alternation of poultices with bandages of adhesive plaster was found by Mr. Ashburner to answer best."

The following is Dr. Roberts's account of the case given above by Mr. Lawrence.

"Charles Uncle, between 14 and 15 years of age, came under my care in St. Bartholomew's Hospital, June 7, 1814, and, from his relation, it appeared that he was born at Augusta, in Georgia, North America, of English parents, who were healthy, and his ancestors hardy and robust; that, soon after his birth, he was taken to the Bahama Islands, was latterly employed on-board a ship, and about a year ago was sent to England as a cabin-boy; that during the voyage, after being obliged to sleep on the deck, exposed to rain for three successive nights, he felt heavy and unwell, and soon afterwards his head began to swell, his eye-lids and the lobes of his ears to enlarge, and tubercles to appear over the face; his breath became offensive, his urine thick, and his genitals diminished in size, from which also the hair disappeared, as well as from the eye-brows and arm-pits; that, after his landing, some tubercles were formed also on the hands and feet, and he confessed, what might reasonably be expected, that he had no sexual desires.

"His countenance was much deformed by these elevations; his lips were swollen, and became intersected with fossæ; the alæ of the nose were enlarged, flattened, and scabrous, so as somewhat to impede respiration, and from the disease extending to the throat, particularly over the uvula and tonsils, the gums being at the same time tumid and highly vascular, the voice was weak and hoarse; there were, besides, glandular tumours near the groin on both sides.

"The tuberculated parts were nearly of the same colour as the rest of the skin, and were so insensible, that scarification, which had been practised upon some of them, had hardly given him any pain; and the greatest inconvenience he felt was from the itching of the affected parts, from some of which a sanious fluid was discharged, succeeded by a scab: on others a superficial ulceration took place, and from many a furfuraceous scaling of the cuticle. He complained at times of head-ach, and observed that he never perspired; but in other respects said that he was not unwell, having a very good appetite and regular bowels. It appeared that he had never seen any one affected with a similar disease.

"This was clearly a confirmed case of elephantiasis Græcorum (lepra Arabum) so accurately described by Dr. T. Heberden, in the first volume of the Medical Transactions, as it occurs in the Island of Madeira, and lately further illustrated by Dr. Adams.

"It appeared that this patient had already taken liquor arsenicalis without success, and I directed acid nitric, ex decoct. sarsap. comp.

comp. in large and repeated doses, with the full diet, and a pint of porter daily; and under this plan of treatment, the disease sensibly diminished, but, soon afterwards increasing, he took hydrarg. submur. gr. $\frac{1}{2}$ cum extract. conii gr. v. every night, in addition to the former prescription, but without any good effect. Trial was then made of acid. phosphor. and afterwards cinchona cum potass. nitrat. decoct. dulcamaræ & pil. hydrarg. submuriat.; also acid. sulphuric. with no abatement, but rather an increase, of the disorder.

"Seeing, therefore, little probability of relieving my patient by medical treatment alone, and that his powers rather declined, his appetite continuing at the same time unimpaired; and reflecting that the lower class of persons were chiefly the subjects of this complaint, occurring, as it frequently does, in catholic states, where meagre days are observed, I directed for him, October 4, a full and invigorating regimen, consisting of a pound of meat, with the usual allowance of bread, &c. a pint of Port wine, and a pint of porter daily, which he continued for some months, when, after taking decoct. cinchon. cum tinct. cinchon. comp. every six hours, on account of a herpetic eruption which appeared on the abdomen, attended with fever, and which was soon relieved, he appeared with a most striking general improvement in the tubercular disease; and, though afterwards affected with a diarrhœa and some cough, he still continued to make progress towards recovery from the original complaint, and with the assistance of hydrarg. submuriat. gr. j. cum rhei gr. v. et opii gr. $\frac{1}{2}$ every other night, and the vapour of hot water to the face, and warm fomentations to the extremities, the whole of the tubercles, becoming softer, subsided, and the surface at length healing, he exhibited an entire new countenance, so that I scarcely knew him; and on February 10, 1815, was well enough to be discharged from the Hospital, in order that he might go to his parents in Devonshire.

"I have been able to find but one case of this disease, which is recorded in the paper of Dr. T. Heberden before alluded to, where a similar result of the softening and healing of the tubercles took place, which both physician and patient attributed to an electuary composed of three parts of cinchona and one of sassafras, taken in the quantity of a large nutmeg, night and morning; a regular, and probably more nourishing diet, than the patient had been accustomed to, being at the same time allowed.

"This complaint seems to be no where generated but in tropical climates; and from the insensibility of the tuberculated parts, does not appear to extend, in its primitive state, below the rete mucosum; but such important deviations from the natural state can hardly exist without some general cause of disease, so difficult of removal, indeed, as usually to afford a case, where it most frequently occurs, hopeless as to its event, and almost disregarded."

CRITICAL ANALYSIS

OF RECENT PUBLICATIONS

IN THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND
MEDICAL PHILOSOPHY.

Cases of Diseased Bladder and Testicle; illustrated with Etchings. By WILLIAM WADD, Surgeon. 4to. pp. 72. Callow.

WE have already had occasion to notice the accuracy and perspicuity of Mr. Wadd, in his Treatise on Strictures, in which he has revived Mr. Hunter's practice, at the same time rendering his language more intelligible, and compressing his subject. If he has added other improvements, it must be admitted that he had an advantage over his predecessor, in the number of intermediate publications, many of which might have been spared if Mr. H. had been well understood and fairly treated; but their appearance has now placed the question of caustic in so many points of view as to render it readily comprehended by the attentive reader.

The present performance claims our particular notice, not only on account of its intrinsic merit, but for the novelty of a work illustrated by the graphic art, in a manner which must supersede all doubts as to its meeting the precise intentions of the author. This will be best explained by transcribing part of the preface.

“The study of surgery has been greatly facilitated by the introduction of engravings to illustrate morbid changes. Preparations, wet or dry, however beautifully executed, are, from the time of their completion, gradually losing their value, by loss of colour, change of figure, and even from the very delicacy of their materials. Add to this, their utility is much lessened by the circumscribed spot in which only they can be examined. In the circle of the theatre they relieve the lecturer, but arrive at many of the hearers when the subject for which they were introduced is passed, and from that period can be only imperfectly recollected, if they are not entirely forgotten. Engravings, on the contrary, may be multiplied to any number, and are always accompanied with minute explanatory references, whilst morbid preparations require a constant interpreter.

“It must, however, be admitted, that inaccuracy in the figure or reference may be productive of errors, of which the common artist, taught only to study effect, is a very imperfect judge.

Hence the difficulty of procuring satisfactory anatomical representations, even from the ablest masters.

“The early habit of pencilling morbid appearances of sufficient interest to deserve notice, has, by degrees, furnished the author with a large collection of drawings. Of these, when, in compliance with the wishes of his medical friends, he has been desirous of offering to the public a selection of the most interesting, he has always been discouraged by the difficulties above-mentioned. On this subject he had frequent conversations with his friend Mr. Hills, whose philosophical pursuits and pre-eminent talents as an artist are well known. This gentleman not only advised the author to undertake what it would be difficult to explain or correct in others, but, as a further encouragement, offered his own instructions, to enable him at once to secure and multiply the productions of his pencil, by means of the etching needle. Such a proposal from one who, unrivalled in the peculiar department of his art, has, in the execution of a work representing the character of living animals, surpassed the productions of this or any other country, was eagerly adopted, and may serve as an apology for the attempt.

“On a review of the sheets, the name of the late Mr. Hunter very frequently meets the eye. Though this was unintentional, it was also unavoidable; nor is it easy to conceive how others who have gone over the same ground can have escaped the same repeated introduction of that *Clarum et Venerabile Nomen*.”

From the nature of the work, it will be easily conceived that, without the accompanying plates, the greater part of it will be uninteresting, if not unintelligible. The author's object was minute accuracy, and to accomplish this he has availed himself of every means in his power. Hence it would be doing great injustice to his diligence were we to mutilate his work by giving any part of it in an imperfect form. We shall, therefore, transcribe some of the introductory chapters, giving an account only of the contents of the rest.

“*Diseases of the Bladder and its Appendages.*—Diseases of the urinary organs are among the most distressing of those which do not necessarily shorten life. The complicated structure of the male organs readily accounts for this, and renders a minute attention to every part, their respective functions, and the causes by which they are interrupted, of the utmost importance. Yet Mr. Hunter is the first, and almost the only person who has given us a rational and systematic view of the various changes in which difficulty in performing a necessary function embitters the life of so many, from its middle period to its termination. His remarks, though invaluable, were only intended as an appendage to his history of a disease, with the consequences of which most complaints in these parts were, till his time, confounded. They are consequently short, but were found quite sufficient for most practical

tical purposes, till Sir Everard Home introduced, as an almost universal remedy, the caustic, which that great master had reserved for the most desperate cases. The application of a general remedy implied an uniformity in the cause of the disease; and Sir Everard's book consisted only of histories of cures, without due attention to that arrangement which formed a new epoch in the study of these complicated complaints. It ought, however, in justice to be remarked, that Sir Everard, in his later publication, appears to have lost much of his former partiality for severe and uncertain remedies.

“ Mr. Hunter has also given us a perfect and plain description of the gradual enlargement of the prostate gland, in many subjects at an advanced period of life. It is not easy to conceive what should have induced his relation, pupil, and successor, to consider a diseased enlargement as a natural formation—at a time when, as M. Condorcet remarks, anatomy has arrived at its acmè, ‘ when every thing which the eye of the observer, assisted by the microscope, has been able to discover, is already ascertained ’—could it be believed that a part should have been overlooked by all former anatomists in a gland so often and so minutely examined. If the high authority of his master, and, I may add, almost the only master acknowledged in the present day, was insufficient, the candid report of his own pupil might have convinced Sir Everard of his too hasty conclusion. Happily this error has led to no severity of practice, nor is it likely, nor even that the authority of Mr. Hunter's successor should induce its adoption in our anatomical schools.

“ In the description of the diseases of this gland, I have, therefore, retained Mr. Hunter's, and the established doctrine, concerning its original form and subsequent changes.”

The first chapter contains the history of two cases which, as Dr. Baillie remarks, are somewhat rare—Calculi in the prostate gland. The history during life (the great desideratum in Dr. Baillie's otherwise invaluable collection of morbid engravings) is added; and the addition of the plates renders the whole as complete as such accounts can be made. The subject is continued in the succeeding chapter. In the third, we have a masterly representation of an enlarged prostate, with a portion projecting into the bladder, and in a state of ulceration. The fourth plate describes a bladder in a most wretched ulcerated state: the history subjoined is particularly interesting. The next is still more so, as being more minute. In this the prostate was enlarged, the bladder thickened, and the surface covered with coagula. In the history of the case, the author recommends injecting into the bladder, and gives some important directions for the manner of doing it. We pass over several others on account of the following history, the theory of which

has not, we think, been sufficiently reduced to proof, though among the maxims of Sydenham.

“The subject was about sixty-five years of age, had strictures, and fistulæ in perinæo; but the urethra was sufficiently open to allow the greater quantity of the urine to pass off that way, a part only coming through the fistulæ. He was very subject to the gout, and occasionally, during a fit, would be seized with strangury and retention of urine, which, notwithstanding the diseased state of the prostate, could always be relieved by means of a small gum catheter. His death was occasioned by an accident.

“That gout sometimes induces a disordered action of the urethra and bladder, is generally admitted; and the following cases seem to confirm it. The first was in a gentleman of most temperate and regular habits, who, till that time, never had a complaint of any kind in the urethra, or any of the urinary organs.”

Subjoined to the descriptions and representations of diseased bladders is an account and etching of some cancerous appearances about the nates, of calculi passed by the female urethra and cut from the male, with a diagram of the two largest calculi in Britain found in the human bladder. The account of diseases of the testicles is introduced by a warm compliment to Mr. Hunter on the manner in which he has reduced the laws of sympathy to some order; and also on the remarks of Mr. Abernethy, and the illustrative cases by Mr. Ramsden.

A chapter follows on Hydrocele, which contains some new matter, and some most important theories, confirmed by actual dissection of subjects whose history was known during life. As Mr. Wadd informs us, in his dedication to Sir James Earle, that he was for ten years his apprentice and pupil, and as, during that period, the mode of cure by injection was first introduced, this passage cannot fail to interest all our readers: we have, therefore, transcribed as much as our limits will permit.

“Whilst (says our author) I had the honour of visiting with Sir James Earle, there was scarcely an operation of any kind performed by him at which I was not present; and, as to Sir James we owe the fortunate revival of this important operation, with its present improvement, it will be supposed that the cure of the hydrocele by injecting the tunica vaginalis testis, made a very considerable part of his practice, and gave me an opportunity of seeing it under every form. In some cases, after caustic, seton, incision, external applications, and other operations, have failed, and even where the injection had been previously tried by others less acquainted with the practice, he was fortunate enough to succeed.

“The only instances of failure were two cases, in which an attempt

tempt was made at a further improvement in the operation; and a third wherein no irritation was produced, in consequence, as it was supposed at the time, of the servant's having diluted the wine. Each of these were cured by a second operation shortly afterwards. Whether even this was necessary cannot now be ascertained, but is by no means certain.

“ ‘The proper object,’ says Sir James Earle, ‘of all operations for the radical cure of the hydrocele, is to produce such an adhesion of the distended vaginal coat of the testis with the gland, or such a consolidation of contiguous parts, as shall annihilate the cavity in which the water constituting this disease is contained.’ The same is Mr. Pott’s language. ‘The cure is accomplished merely by the coalescence of the tunica vaginalis with the tunica albuginea;’ and Mr. Sharp, in his *Critical Enquiry*, tells us, that, ‘upon examination of several hydroceles after cure, it appeared evidently it was wrought by an universal adhesion of the testicle to the tunica vaginalis.’ Such, I believe, were the sentiments of every surgeon of eminence, till Mr. Ramsden ventured to dissent from the established doctrine, asserting that the obliteration of the cavity of the tunica vaginalis testis was not essential to the cure, and that it did not happen unless the curative process had been carried to unnecessary severity.

“ Among my notes is a memorandum which very much confirms Mr. Ramsden’s opinions. A gentleman underwent the operation in May, 1799. He left town at the end of June. The beginning of July he stated by letter, that the hydrocele had returned as large as before the operation; and in the middle of the next month he wrote word that it had entirely disappeared. The operation had, therefore, excited a new action in the parts, and though the effusion of fluid had returned, yet the absorbents had recovered their function.

“ That adhesion takes place between the tunica vaginalis and testis, where there has been a certain degree of inflammation, has been repeatedly demonstrated; and that it is the general effect of the usual mode of injection; but, if the cure can be accomplished by less irritation, and without any change in the parts from their original formation, many might be inclined to undergo it, who would not be willing to hazard an operation under any other circumstances.

“ Mr. Ramsden has not confirmed his theory by dissection, but brings abundant proof of transparency in the scrotum after the operation; and on that fact its validity chiefly rests. He attached great importance to the ascertaining the transparency of hydrocele, and in all cases made it his first object of enquiry, thinking that the surgeon who neglected this ‘grand characteristic’ gratified his vanity at the risk of his patient’s security.

“ The usual injection is two parts wine to one of water, or if the tunics are thin, the testicle enlarged, or any circumstance require caution, it is made of equal parts, wine and water. Even the

the latter proportion is sometimes productive of considerable pain and tumefaction.

“With a view of following Mr. Ramsden’s plan of curing by only exciting a new action, with as little pain as possible, I have so lessened the quantity of wine, that the irritation produced has been such as not to detain the patient at home after the day on which it was used; and I am inclined to think that very little irritation of the sacculus is sufficient for the cure of most hydroceles, that do not exceed half a pint in the quantity of fluid, nor six months from their first appearance.”

This subject is enriched with many accurate etchings, which, though they possess not all the softness of engraving, are sufficient for every purpose of illustration. On the whole, we are so well pleased with Mr. Wadd’s performance, that we are anxious to see his example followed, and extended to other branches of morbid anatomy.

Edinburgh Medical and Surgical Journal, No. XLV. for
January, 1816.

(Continued from p. 155.)

Art. V.—*Case of Fracture of the Skull, in which a quantity of Brain was lost, and a real Hernia Cerebri successfully treated by Pressure; and an Account of the good Effects of Tincture of Bay-leaves to Wounds, Ulcers, Burns, &c. and of Charcoal internally in Dysentery.* By C. K. CRAWFORD, Surgeon, R. N.

THE title of this article speaks for itself. The subject of the hernia cerebri was a boy betwixt two and three years old. No part of the scalp was lost.

Art. VI.—*Case of very extensive Wound of the Abdomen, with complete Division of the Ileum, and Penetration of the Cavity of the Thorax.* By THOMAS CALTON, Surgeon, Collingham.

The subject was a boy seven years old, and of a peculiarly placid temper. We mean not by this to undervalue the cure; but, as far as we conceive our duty, to add to its credibility.

Art. VII.—*On Puerperal Fever, as it appeared at Holloway, near London, in the early part of the year 1812.* By DAVID DUNN, Member of the Royal College of Surgeons in London.

We shall spare Mr. Dunn and his friend Dr. F., whoever he is, by passing over the two first cases. It is, however, creditable to the author, that he improved by an examination of the dead bodies. But that a practitioner so near town

should never have known the necessity of bold blood-letting in puerperal fever, (which may be called peritonitis,) before these cases occurred to him, nor have read nor heard of it till Dr. Armstrong and Mr. Hey wrote, surprises us a little.

Art. VIII.—Three Cases of Inflammation of the Heart, with the Appearances on Dissection. By ANDREW DUNCAN, Jun. M.D. Professor of Medical Jurisprudence in the University of Edinburgh.

The first of these cases occurred in a miner, twenty-eight years of age. We shall give the symptoms and appearances after death in the author's own words, omitting the treatment, which is the less important as it was unsuccessful.

“Complains of severe head-ach, and a gnawing pain in the region of the stomach, not increased by pressure, but much aggravated on taking food; with a sense of a ball in the under part of the abdomen, working upwards through the course of the alimentary canal to his throat, when he feels as if immediate suffocation would ensue. This feeling he has experienced almost every night for nearly three months past. Frequently, although not always, at the beginning of each paroxysm, he has a very copious flow of urine, approaching nearly to the colour of table-beer. During the fit his belly swells, and it is always relieved by a great discharge of flatus by the mouth. He is not sensible of foaming at the mouth during the paroxysm; nor, if standing, is he thrown to the ground, but becomes so giddy as not to be able to stand without assistance. He also complains of great debility, want of appetite, interrupted sleep, and a disagreeable taste in his mouth on awakening in the morning. Has a delicate look; pulse 104, of moderate strength; heat natural; tongue covered with a brownish crust, with a clean edge; some thirst; belly costive, in which state he always feels worst; urine varies; when his complaints are severe, it is increased in quantity, and of a higher colour.

“Began to complain about three months ago. Was first seized with the pain and sense of tightness in the region of the stomach. Can remember no cause for his complaints, except being exposed to cold and hard work. Nothing happened at that time particularly to affect his mind. Says he has used stomachic bitters and bark, without alleviation of complaints. Was formerly troubled with symptoms nearly similar to the above, but never to such a height. Was able always to follow his occupation, and enjoyed a good appetite.”

“*Sectio Cadaveris.*—The contents of the cranium, thorax, and abdomen, were carefully examined.

“About an ounce of a transparent and colourless fluid was found accumulated between the dura mater and arachnoid coat, about the lower surface of the cerebellum, and the origin of the spinal chord, obviously collected here in consequence of the position

sion of the head after death, and, in all probability, partly derived from the spinal canal. Within the lateral and middle ventricles, there was also from half an ounce to an ounce of a serous fluid. The brain and its membranes presented no appearance of disease. The lungs adhered very extensively on both sides to the parietes of the chest, but chiefly on the right. The adhesions were close and strong. The substance of the lungs had undergone no morbid alteration of structure. The pericardium contained from six to eight ounces of a greyish muddy serum, with flakes of a curdy matter. The heart had suffered a change of texture, not less singular than extensive. The whole parietes of the right auricle, and the anterior side of the corresponding ventricle, were found converted into a greyish-coloured substance, of a very uniform texture, and having the consistence nearly of the prostate gland. There was not the slightest vestige of any of the natural tunics of the heart in this substance. The parietes of the left ventricle had undergone a similar change for about an inch all around its auricular orifice, and there was fully a third of the septum between the ventricles, towards the base of the heart, converted into the same substance. Between the arterial orifices too, the septum was a little thicker than usual. The inner surface of the right auricle was covered with a sort of efflorescence, not unlike that which is often exhibited by hydatid cysts. The left auricle exhibited no morbid appearance. The valves, tricuspid, mitral, and semilunar, were of their natural structure, as also the roots of the pulmonary artery and aorta.

“ Within the cavity of the abdomen there was most extensive disease. The whole mesenteric glands were enlarged, so as to form one irregular mass. When divided, they exhibited an appearance like that already described, as having been found in the sides of the heart. The whole of the colon had its coats thickened and rendered exceedingly tender. At various points of it, there was a vascularity accompanying this thickening, which indicated inflammation. At other parts, the sides of the intestines had become considerably thinner, and projected in the form of little pouches, which adhered to the parts with which they happened to be in contact. The whole of the jejunum, and a great part of ileum, were in the same state. In the angle formed by the junction of the transverse part of the colon with the large curvature of the stomach, which were found closely applied to each other, there was a stratum of half an inch broad, and a quarter thick, of the same sort of substance as was found in the heart. Towards the surface of the liver, in its right lobe, and at its upper convex part, there was a knot of the same kind of matter, of the diameter of a shilling; but, in other respects, this organ had a healthy appearance. There were two or three nodules of a similar matter, in the substance of the pancreas. The spleen presented nothing remarkable.

“ There was about a pint of serum effused into the cavity of the
the

the abdomen, which, except where it had touched the gall-bladder, and in consequence acquired the colour of bile, was of the usual yellowish tint, and quite transparent."

A long series of reflections by the author follows: some of these we shall notice.

"This case appears interesting,

"1st, From its rapid and unforeseen event.

"2d, From the appearances discovered on dissection.

"When admitted, it was supposed to be a case of hysteria in a male,—a rare occurrence, yet not unobserved. Some consider hysteria and hypochondriasis as the same state of disease, modified by sex; the former being peculiar to women, the latter to men. This is, in general, true, but exceptions do occur; and it is not sufficient to reject all the testimonies adduced in proof of this, because we ourselves have not seen it. Unequivocal cases of hysteria in men have been seen by Dr. Trotter and others. Hypochondriasis certainly oftener affects females.

"The difference between them depends much on temperament. Hysteria is peculiar to the sanguine, and hypochondriasis to the melancholic, temperament. In hysteria, the affections of the mind are characterised by fickleness and mobility; in hypochondriasis, by the obstinacy with which the mind broods over a single subject. In hysteria, the patient is violently affected by every circumstance external to herself, and is agitated by every sudden impression; but the paroxysm is no sooner over, than she laughs at her own folly, thinks no more of it, and resumes her wonted spirits. In hypochondriasis, on the contrary, external circumstances make little impression on the patient; and if a sudden and violent impression rouse him for a moment, he speedily returns to brood over his loss of health, or finds in what has just passed fresh cause for despondency.

"The symptom in Baxter giving rise to the idea that his disease was hysteria, was the accurate description he gave of the *globus hystericus*. But after he came under our care, the symptom did not recur.

"I was then led to consider his complaint as hypochondriasis, from the pain of stomach, increased on taking food; the irregular state of his urine; the costive belly; flatulence; interrupted sleep; bad appetite; foul tongue, and bad taste in his mouth; and still more by his constant complaints. I therefore left him a day or two to observe the symptoms."

We would only remark, that hypochondriasis is a very general, and, unfortunately, a very ill-defined word. In common language, the man had all the symptoms of hypochondriasis; but we regret exceedingly that a professor should be so led away by a nosological term, as to leave so interesting a case for a *day or two*. We wish we had a closer description of this "*efflorescence*, not unlike that which is

often exhibited by hydatid cysts." Were they cysts, or what was the difference? No one will question that there was disease enough to kill a man, or that the whole was formed before the author of the paper had any interview with the patient; but it would be very desirable to know whether these appearances were the effect of violent inflammation at a remote period, or had gradually grown during the last complaints. We are well aware of Corvisart's distinctions between the acute, sub-acute, and chronic inflammation of the heart; the great objection to which is, that the two latter are, we fear, often the consequence only of the first, which was violent enough to produce effects that must prevent the future regular functions of the heart, but not sufficient to produce immediate death. This is a question of the utmost importance, inasmuch as its decision would lead to a due consideration of arresting, at all events, and in its earliest stage, high inflammation in vital parts, without waiting to determine whether we have carditis, pericarditis, or diaphragmitis, or whatever other *itis* we may meet with in nosological tables or dictionary writers.

Dr. Duncan produces some very judicious references to Morgagni and others, concerning diseases in the cardiac system. The only one to his purpose is the case of the Venetian woman, which makes the 23d article of the 44th epistle. This case is highly important on another account, which is only slightly hinted at in this place, but which we shall notice the first time a question occurs concerning the uncertainty of the signs of life.

"She was dissected (says Dr. D.) ten hours after death, and Morgagni, having doubts that it had actually taken place, proceeded with the utmost caution, after having made all the usual experiments to ascertain it."

The doubt which embarrassed Morgagni and his friend arose from the body remaining warm; a question which we are astonished has never occurred to the writers on medical jurisprudence, and which we are still more astonished has never been attended to by the various experimenters and inquirers into the causes of animal heat. But of this more when a proper opportunity offers.

Some judicious remarks follow on the texture of muscles, and the changes they undergo with a view to form a similar analogy regarding the muscular part of the heart. We must not, however, pass over one instance of scepticism concerning a question highly important in this and all other inquiries concerning the heart.

"It is not yet ascertained (says our author) upon what the red colour

colour of the flesh of man, and the higher orders of animals, depends. For the fact, that red muscles become white by washing, does not prove that the red colour depends upon the blood, but only that the colouring matter is soluble in water. Fishes have red blood, and yet many of them have white muscles; and, in some animals, different muscles differ very much in colour. This is especially remarkable in the black cock, where the outer layer of pectoral muscles has a very dark colour, and the inner is white, so that, in cutting out a slice of the breast, we have flesh of two very different colours, and yet supplied with the same blood, and even from the same arterial trunks."

In answer to this, we shall only say, in the words of Mr. Hunter, that in all quadrupeds most of the muscles are red. That this redness arises from the blood, is proved by the muscles being red in proportion to the quantity of blood they contain, which is in proportion to the quantity of use required of them. This is evident in all the muscles with whose actions we are acquainted, and is particularly striking in the heart, whose action, being constant, requires the most blood, and in all red-blooded animals it is found the reddest part: next to this are the sphincter muscles, whose actions are also constant, though not to so great a degree. It is not less certain that muscles lose the redness they have acquired in proportion as they are less used. This is an important consideration in the heart, as we shall presently see.

"We find (continues Dr. D.) muscles altered, not only in their colour, density, and cohesion, but even in their very nature. We find them converted into fungous or scirrhous masses, or other diseased composition, or into cartilage, tendon, bone, &c. substances not in themselves morbid, but here unnatural.

"A change of this kind had taken place in Baxter's heart. The greater part of it had lost its natural red colour, and was almost white. This in itself is here a mark of disease; for, although, in different individuals, the intensity of the red colour of the heart differs naturally, as well as the colour of other muscular organs, yet the natural colour does not exceed certain limits; and when there is great and strikingly morbid differences between different parts of the same muscle, it seems always to proceed from disease.

"But it was not merely in colour that the deviation from the natural composition of this heart was evident. Its texture or grain was also evidently changed, for, in that portion which had lost its natural colour, the fibrous arrangement natural to it was everywhere obscure, and in some places not to be discovered, even with the aid of a lens. It was not, however, absolutely destroyed, because, by boiling, it not only became hardened and crisped, though in a less degree than the natural fibres, but I succeeded, by very long boiling, in perfectly developing its fibrous texture,

texture. In short, the change of texture may be best described by saying, that, in a considerable portion of this heart its grain had become much finer than natural; so fine, indeed, that, without the assistance of art, the fasciculi upon which the grain of muscles depends could not be recognized.

“This change was dispersed through different parts of the heart, but was chiefly obvious in the right auricle, septum, and left ventricle. In general, the change was less perfect near the inner surface, so that there the flesh, though white, was still visibly fibrous; while, as it approached the outer surface, its fibrous arrangement disappeared altogether. Yet, in the midst of these cartilaginous-like portions, a small bundle of red fibres was occasionally intermixed.

“As it is highly improbable that an alteration of structure of this kind took place in the course of the few days during which Baxter declined so rapidly, we may suppose that it is not inconsistent with the heart carrying on its functions with tolerable regularity.

“To ascertain this point, however, we should compare the phenomena which have occurred in other cases of the same kind, —but here we altogether fail; for, so far as I have been able to discover, no case exactly resembling this, in the kind of alteration of substance, has been observed, unless, perhaps, that which I have translated from Morgagni.

“It is not unusual to observe white opaque spots upon the surface of the heart, sometimes thicker, and sometimes thinner; sometimes more, sometimes less distinct; and, at first sight, this heart seemed to present a spot of this kind, larger, thicker, and more distinct than usual; but, on cutting into it, the difference was obvious, for these spots are owing to the formation of a false membrane exterior to the proper coat of the heart, so that it can be removed, and leave the heart covered with its proper tunics. This appearance occurs so often, that Baillie and Soemmering do not consider it as being morbid. In Baxter’s heart, however, it appeared that the white spots were owing to the substance of the heart itself being altered in composition.”

“The next morbid appearance (proceeds our ingenious author) noticed in Baxter’s, was a sort of efflorescence, covering the inner surface of the right auricle, not unlike that which is often exhibited by hydatid cysts. It consisted of globular and pedunculated masses, attached to the parietes, and had very much the appearance of fatty particles; but on analyzing them by fire, they were evidently fibrine or albumen, at least when placed on hot iron they did not melt, but shrivelled and burnt with the smell of feathers.

“The question in regard to these is, whether they existed during the life of the patient, or were first formed by the gradual coagulation of the blood after death, and the concretion of its coagulable lymph with the sides of the auricle. But, besides occurring in the auricle, it appeared that a similar substance, but more in the form

form of a membrane, had lined the right ventricle, at least fragments of it, passing under the columnæ carneæ, still remain in the prepared heart.

10 "Except in general form, these have a considerable resemblance to the polypi of the heart, about which it was so long, and is still, disputed, whether they were formed before or after death; and probably the same arguments may apply here, as the only difference is, that, in the usual form of polypi, there are one or more long fibrous-like masses of considerable size, often entering into the mouths of the vessels. That the great majority of these are formed after death, there cannot be a doubt; indeed there are few bodies in which they are altogether wanting; but still there seem to be incontrovertible proofs of their being occasionally formed during life. The most decisive instance of this that I have met with, has been admirably described in this Journal, by my friend, Mr. W. Wood. Indeed, I am inclined to think that the loose body, as well as the attached mass, observed by him, had the same origin with what Dr. Gordon and myself have denominated the efflorescence in Baxter's heart. At any rate, they prove the possibility of its having existed there long before death, which becomes more probable when we consider, that such an appearance would be often observed, if it originated in the coagulation and separation of the blood in the heart after death, as in this there can be no great diversity. The great objection to this opinion is the natural state of the circulation during life; but this admits of explanation, as no part of this efflorescence was loose, or situated so as to obstruct the flow of the blood.

11 "There are three ways in which such concretions may be formed: 1. By an organized growth from a surface of greater or less extent. 2. By an inflammatory exudation from a living surface, such as takes place often on the lungs, and sometimes on the outer surface of the heart itself. And, 3. The coagulation of blood, in consequence of a portion of it being removed out of the current of the circulation, and becoming stagnant.

12 "In the first manner are formed tumours, warts, &c.; and sometimes even loose bodies, by their subsequent separation, when originally attached by a narrow neck; but this could not be the process in the present instance."

13 On this subject we have, of late, so amply delivered our opinion, in our remarks on Mr. Hodgson's very ingenious and well-conducted inquiries concerning the diseases of arteries, that we shall only refer our reader to them. Indeed we hardly know how to account for Dr. Duncan's passing over Mr. Hodgson's labours in this part of his reflections. All further remarks we shall preserve for the conclusion of the article.

14 Of the second case we shall transcribe the passages most important to pathology; the death of the patient in this, as in

in the former, rendering the therapeutic part less interesting.

“Mary Rickman, æt. 22, married.—March 11, 1815.

“Complains of cough, attended with considerable expectoration; pain in the thorax, more particularly referred to the sternum, and between the scapulæ, increased by full inspiration and cough; and of difficulty of breathing, aggravated by exertion. She is unable to lie in the horizontal position.

“Complains also of pain in the right haunch, increased by pressure and exercise, but unattended by swelling. There is also considerable swelling of both ankles, which pits slightly on pressure; but there is no discolouration of the skin, nor is there any pain. Pulse 88; H. moderate; tongue rather white; much thirst; appetite bad; B. costive; catamenia irregular; urine natural; sleeps ill.

“Complaints first began about ten days ago, with shivering and flushing; pain in the breast and cough, followed the next day by pain in the shoulders, elbows, knees, and right haunch; but the pain in all these joints, with the exception of the last, is now gone.

“Has been bled, and taken purgatives and diaphoretics, but with little benefit.

“Attributes her complaints to exposure to cold.

“Mitt. sanguis ad \bar{z} xij. pleno rivo.

“App. vesicat. parti affect.

“12th.—Was bled last night; no buffy coat on the blood, which, however, is tolerably firm. The blister applied to her side rose very well; but, as she was not relieved this morning, she was ordered to be bled again, but would not submit to the operation. Has a very severe cough, which distresses her much; and she has had no sleep for eight nights past. Has had no stool. The pain in the side, where the blister was applied, is relieved, but it is more severe in her breast. Pulse 88, rather full, and somewhat hard.”

This plan was continued or altered, as circumstances required; till the 18th of the following month, when the patient died; and the examination of the body will readily account for the want of success, however judicious the treatment might be.

“*Sectio Cadaveris.*—On laying open the thorax, a considerable quantity of fluid was found effused into the cavities of the pleura, on both sides.

“The lungs on both sides seemed quite healthy, and of their natural colour; but, on endeavouring to raise them up, they were found to adhere firmly to the pericardium, through its whole extent; to the diaphragm; and laterally to the pleura costalis, by membranous bands; and the lobes were firmly attached to each other, so that they could not be separated without some difficulty.

“The pericardium was found adhering so firmly all round the heart,

heart, that it was with difficulty raised from it. It was very much thickened, and evidently consisted of three laminæ; the middle one being opaque, white, and dense; the outer very unequal in thickness; and the inner very vascular, red, and pulpy.

“The heart itself was a good deal larger than natural, and was also thickly covered with coagulable lymph, which, owing to its being torn asunder from the pericardium, appeared very irregular on its surface. Under this lymph, about two-thirds of the thickness of the heart had been changed into a substance somewhat resembling in its appearance condensed fat; and was found in fact to contain fat, as it swam in water, melted, and stained paper with a greasy stain: the remaining third had almost lost its muscular appearance.”

“The columnæ carneæ in both of the ventricles were larger than natural. Ossification had just commenced in the semilunar valves, at the mouth of the aorta; but the mitral valve was thickly beset with osseous matter.”

Among the reflections of the author, we shall only select the following paragraph.

“Pericarditis is indeed said to be a very obscure disease. And yet, except for my having at first taken up the erroneous notion that it was pleuritis, it was sufficiently obvious in the present instance. We had fever characterizing active inflammation, and the seat of the pain sufficiently indicated the place. Now, the only organs which could be affected there were the pleura, mediastinum, or pericardium. The cough and expectoration, and the absence of symptoms usually enumerated as characteristic of carditis, misled me in my judgment. Rickman had not the *pulsus inequalis, palpitatio et syncope*, of Cullen; nor the constant vomiting of Darwin; nor the palpitation, faintings, quick and unequal pulse of Sauvages; nor the very intense thirst of Burserius; nor the hydrophobia of Daniel; nor the delirium of Davis.”

So much for nosology; so much for dictionary writers, systematizers, and even for those who consider themselves practical writers. It is not our intention hastily to condemn either; but to teach the reader how uncertain the best of them must be, and how necessary he will find it to judge for himself.

“The dissection of this case (adds our author) presented a most striking instance of universally and violently inflamed pericardium; and I think I am warranted in considering the inflammation of the pleura in the vicinity, causing agglutination of the neighbouring lobes of the lungs, and effusion into the cavities of the chest, as an effect of the original pericarditis, in consequence of the inflammation spreading by contiguity. The pericardium in this woman, adhered universally to the heart by a layer of coagulable lymph, without any effusion of serum. Cases of this kind are not always necessarily fatal, for, whenever we find the pericardium adhering to the heart after death, we may infer, that it is the consequence of pericarditis at some former period. This is

not

not a very rare occurrence. I have myself seen it in a man who died apparently of asthma, and Corvisart has a chapter on the subject. But the most remarkable circumstance in this woman's heart was its partial conversion into fatty matter. Of that I was assured, not only by its appearance, but by chemical experiments, which were perfectly conclusive as to the fact. Corvisart himself never saw an example of this conversion, but says, that it has been seen by some modern anatomists, although their observations have not been published. He also confesses his ignorance of the manner in which such a transformation takes place. In the present instance, we find it accompanying pericarditis, but it does not follow that it was an effect of the inflammation. It may have existed before the commencement of the fatal disease. I do not know that any connection has ever been traced between the conversion into fat of other muscles, and preceding inflammation.

"The commencing ossification of the valves, in so young a woman, is, however, an argument in favour of some state of inflammation having existed in the heart on a former occasion; and the membranous bands, causing lateral adhesions of the lungs, were evidently the effect of pectoral inflammation some time before the fatal attack."

We come now to the third case contained in this interesting and important paper.

"John Macleod, æt. 17, sailor.

"January 25th.—Is affected with pain in the right side, on deep inspiration or on cough; which last is pretty severe, and attended by a very bloody sputum. The chest feels hot but not oppressed. Has head-ach, nausea, retching, and an occasional vomiting of a slimy black matter. Thirst; tongue whitish and moist at the edges. No appetite; B. regular; no sleep; pulse 92, small and soft.

"Complaints of three days duration. Sputum became bloody yesterday morning. Was immediately bled to considerable extent; and a cathartic was administered."

The patient lived, under various treatment, for sixteen days.

"On opening the thorax next day, few or no adhesions were observable; nor was there any considerable effusion of serum into the sacs of the pleura. A little to the right of the sternum there extended from the lower part of the left side a dirty chocolate-coloured bag, which, on being opened, proved to be the pericardium adhering to the lungs, thickened and much distended; also containing two pounds six ounces of perfectly formed pus.

"The inner side of the pericardium, and that part which is reflected over the heart, were covered with a thick coating of a substance resembling condensed curds: and in some parts to a greater depth than others.

"The substance of the heart was very much paler than usual. It had no other peculiarity.

“The dissection of this case shewed that it was an example of pericarditis, nearly as free from complication as it can occur; and, on this account, it becomes the more valuable, as Corvisart informs us that he is in possession of no proper case of acute pericarditis without complication. But here, while we have a very high degree of inflammation of the pericardium, both where it invests the heart itself, as its outer membrane, and where it is reflected as a loose bag around it, there was almost no affection of the neighbouring parts.

“The leading symptoms were at first pain in the right side; certainly a very anomalous symptom, but it must be observed, that the pericardium extended to the right of the sternum; cough, with bloody expectoration; head-ach; nausea; retching; and occasional vomiting; pulse 92, small and soft. In the progress of the disease, the pain became general over the left and lower parts of the heart; the retching continued; the pulse became quick, feeble, and intermitting; and delirium came on. The bloody expectoration was for a short time suspended, and then increased so as to amount to hæmoptysis. At first he complained of want of sleep, afterwards he slept or dozed a great deal. His cough and dyspnoea fluctuated, but increased towards the close of his life, which took place on the fifteenth day from the attack.

“These cases seem to me to form a valuable addition to our knowledge of this interesting disease. In Baxter we have an example of chronic and occult carditis, without any symptom occurring to indicate the affection of the heart; while after death the effusion of coagulable lymph, both into its cavities and into the pericardium, and the change its substance had undergone, left no doubt as to this important organ having been generally affected with inflammation. In Rickman and Macleod, we have cases of acute or subacute pericarditis; the former, accompanied by effusion of coagulable lymph, would have produced, if the patient had survived, a general adhesion of the pericardium; and the latter terminating in an enormous, and necessarily fatal, effusion of pus. The symptoms during life were no less different than the appearances after death; but any attempt to connect the one with the other would be premature.”

The few remarks we shall offer will be less necessary for those who have perused with attention our analysis of Mr. Hodgson's performance. We shall, therefore, only repeat, that all the appearances described in these cases prove high inflammation in the early stage of the diseases, at which time only they might probably have been all relieved.

It was unfortunate for all these patients that they were seen so late in the disease by the judicious author of the paper; otherwise, it is at least probable, that all the calamitous events which followed might have been prevented, and, to render the paper practically useful, this, we conceive, should have been the object constantly kept in view in every part

of the detail. That the symptoms were those of debility in the end is evident by the wine directed in one instance, and the wine-whey in the other. But whence, it should be enforced on every young practitioner, did this debility arise, and what would have been the means of preventing it? The answer is ready. By checking the inflammation in the first instance, and thus preventing the irrecoverable condition of so important an organ.

The only additional remarks we shall make on the various appearances are:—that flocculi on the inner surface of the heart or larger arteries rarely appear unless the internal surface has been destroyed by previous inflammation; that there is reason to believe coagula on the sides of these parts when smooth, particularly if uniting an organ and its investing capsule, will, if the patient survives, gradually elongate so as to give an increased scope towards the original motion of these parts on each other; that the pieces of coagulum found, whether in the heart or arteries, arise from the high disposition which is found in the blood to coagulate in the living body, when parts in the neighbourhood are highly inflamed. Such is the true theory of Mr. Hunter's adhesive inflammation. The opinion that such coagula are formed by the stagnation or slow motion of the blood within the heart or arteries, is erroneous, because such a cause in the living body is not equal to such an effect as Mr. Hunter has proved experimentally in several trials. The opaque spots on the heart are frequently seen, and when we know the history of the patient may be always accounted for by some previous inflammation.—See *Sir Everard Home's Account of the Examination of Mr. Hunter's Body*.

The fatty appearance or change of the muscle to adipocere can only be explained at present in one way. Inflammation may be carried to the point of mortification. As we rarely find suppuration from mere inflammation in muscles, and never we believe hitherto in the heart, the mortified portion must remain without being separated; and in this state, having lost all the properties of life, it becomes in the condition of those muscular substances which have been for some time kept from the air in moist situations: that is, it is convertible into adipocere.

Whilst we have made these very free remarks on Professor Duncan's paper (all of them, we assure him, confirmed by the examination of cases under our own inspection,) we are free to acknowledge the obligations we owe him; and earnestly recommend him to pursue such inquiries in private families, where he can with more certainty learn all the previous symptoms.

Art.

Art. IX.—*Case of Inguinal and Popliteal Aneurism, cured by tying the External Iliac Artery.* By WILLIAM NEWBIGIN, Esq. President of the Royal College of Surgeons, Edinburgh.

The success of this case does credit to the improvement of modern surgery, and the consequent increased courage of the practitioners.

Commentaries on some of the most important Diseases of Children. By JOHN CLARKE, Esq. M. D. &c. &c. &c. Part the First. Svo. pp. 198. Longman and Co. 1815.

A WORK on the Diseases of Children, from a practitioner of Dr. Clarke's age, experience, and celebrity, cannot be perused without interest. After filing, if we may be allowed the expression, all his practical observations, by several years' public lecturing and frequent consultations, we might expect a concentrated series of aphorisms, which the young practitioner should always keep in view. If we are disappointed in this respect, it is, probably, because this meritorious physician has not lived to complete his labours. We must, therefore, be thankful for the volume as it is; and only hope that his surviving relation will, from the notes of the deceased, and his own observations, favour the world with that accumulated knowledge we have a right to expect from such sources. This is the more to be desired, because the Preface informs us that in a future part it is the author's intention to enter more at large on medicines proper for children—"to lay before the reader some account of those medicines which, in the course of long experience, have been found to be most useful in the various disorders of children."

The first chapter contains some general observations on the diseases and mortality of children, and on the state of medical knowledge on these points. Here the author begins by regretting, in common with all other medical men, the imperfection of our bills of mortality, which, however correct in the number and ages of the persons buried in the districts, conveys very little medical information, on account of the imperfect manner in which the diseases are expressed, and the ages at which each proves fatal. Another imperfection, continues our author, is, that it contains no information as to births; so that it is impossible to ascertain the relative proportion of births and deaths. Dr. C. does not seem aware that the same difficulty attends the burials, many being interred in dissenting cemeteries, which afford no account to the parish clerks, as the opinion of the searchers is no where registered.

registered. This is evident by the language of those documents, which only mention burials, and in what parish-churches, or parish burial-grounds.

From the bills, however, imperfect as the are, the author draws the following conclusions, taking the gross numbers for the last forty years of the preceding century.

“It appears from this table of the burials, as published in the bills of mortality annually, that in forty years the whole number of burials amounts to 836,285.

“It appears that of this number 281,408 died before they had attained the age of two years; and that, of the surviving 554,877 (after deducting those who died under two years of age), 113,393 died before they reached the age of ten years.

“If the assumption above stated be true, that in early life the births and burials are equal, then it follows, that of all the children born within the district comprehended in the bills of mortality, nearly a fourth die under two years of age; and of the survivors, about a fifth in the succeeding eight years, that is, under ten years of age.

“In some years, as in 1760, 1765, 1766, 1767, 1768, 1769, and many others which may be easily referred to, more than a third of all the burials are of children under two years of age.

“The result of this examination of the yearly bills of mortality in London and the suburbs, is very important, not only in a medical, but in a political view. It must on all hands be admitted that, *cæteris paribus*, the strength of every nation will be proportionate to its population, and that every thing which has a tendency to diminish the population, must affect its strength and prosperity. It has been maintained, and perhaps with great truth, that the population of a country will be proportionate to the means of subsisting the inhabitants: * but the want of subsistence can hardly be supposed in this country to be a sufficient explanation of the extensive mortality among children under ten, but especially under two years of age. It is a subject of infinite importance to the community, and no measure should be neglected, which might have the effect of checking this great mortality in the early periods of life.”

“* It is very difficult to set bounds to the power of a country to subsist its inhabitants. In Great Britain, and still more in Ireland, there are large districts of waste land unemployed at present, so that they could maintain a greater number than they do. In Ireland, immense tracts of bog are capable of being reclaimed, if encouragement were given to the inhabitants to exert themselves. Moreover, the commercial intercourse of these dominions with other nations would produce the importation, if necessary, of very large quantities of grain in the way of exchange, if the population should increase much beyond its present extent.”

“There

“There are some diseases,” continues our author, “of which (with a very few exceptions) the human constitution is susceptible once only in the whole of life: such are the hooping-cough, the measles, small-pox, and, perhaps, the scarlet-fever, attended with the ulcerous sore throat.

“Children in early life will be very liable to these diseases, especially in large towns, which are seldom entirely free from them, and where, therefore, in some seasons, and in certain unknown constitutions of the air, or from different degrees of susceptibility in the human constitution at different times, they occasionally become endemic, and prove mortal to a very great extent.”

After these judicious observations, we were surprised to hear so experienced a writer recommending, or rather enforcing, separations, to prevent the spreading of diseases, “from which large towns are seldom free.” How, we would ask, can a person promise himself a moment’s security from dangers he never can see or prevent, and of which, till he is secured, he must live in perpetual terror.”

“It is (we are told) in the power of the legislature to establish such a system of police upon the subject of contagious disorders, as to lessen considerably the extension of some of them, by making provision for separating the sick from the healthy, at least in most cases of contagious disorders. This might be effected by establishing public hospitals at the national expence, for admitting the poor, without interest or recommendation, when labouring under diseases capable of being communicated by contamination, and allotting separate establishments for different diseases.

“With respect to the small-pox, this separation of the healthy from the diseased might be made compulsory upon all ranks of society. In the natural or casual small-pox, all infected persons should be compelled to be separated from the healthy. If poor, they would be glad to take advantage of a public establishment, by which their expences would be diminished, and where food and medical attendance could be had gratuitously. Those families whose superior station in society would not make it necessary or desirable to take advantage of such institutions, should be compelled to avoid all general communication with the healthy part of the community; to inscribe on their houses, in large legible characters, that the small-pox is there; and to perform a reasonable quarantine after the termination of the disease.”

And when all this is done, we would ask, what is accomplished? Can any persons promise themselves a moment’s security, but by those means which they are more likely to adopt in proportion as the danger of infection is the greater? This subject has, however, been so often canvassed, that we forbear to follow the author through the rest of the chapter, till, at the close, he touches on a subject so entirely within

his own sphere, that we cannot do otherwise than offer it in his own words.

“ Important as the attention to the diseases of children confessedly is, no part of medicine (to use no stronger expression) has been so little cultivated.

“ In all the works of all the best writers, from the age of Hippocrates to the present, inclusive, scarcely any practical information is to be found upon the subject, unless a few scattered and detached observations may be so considered.

“ The reason of this is sufficiently apparent, when it is recollected, that the practice of midwifery among the ancients, in all nations whose history is known, was committed to women only, and those generally of the most ignorant description.* From this cause, it would naturally follow that the treatment of the complaints of children, as well as the general regulations of their diet, &c. would devolve upon a class of persons utterly incompetent to make, far less to record, any useful observations. Ignorance is generally presumptuous, and they would soon think themselves competent to act as physicians in the diseases of children, and little disposed to ask assistance from others.† Hence the ancient physicians were deprived of the means of procuring information; and the deficiency of it in their writings is, therefore, less a matter of surprise.

“ In this country the practice of the healing art is divided between physicians and surgeons; the latter of whom, till of late years, were very little acquainted with medicine. Women were principally employed in the practice of midwifery; and surgeons were called to cases of mere mechanical difficulty, and seldom saw the patient afterwards.

“ The establishment of the Royal College of Physicians appeared very likely to remedy the prevailing ignorance of the persons practising midwifery, (as the members of it, by their charter, have a right to practice both surgery and medicine,) and to enlarge the knowledge of the diseases of women and children.‡ But there seems to have been a fatality on this point, and that women

* Terence, in his *Andrian*, thus describes the midwife: ‘*Sane pol! Ista temulenta est mulier & temeraria.*’

† *Etsi vero nonnulli existimant infantium morbos solum naturæ & mulieribus, quæ infantes tractant, committendos esse; tamen & hic medico suæ partes sunt.* Sennertus.

‡ One of the greatest advantages proposed by this institution was that of examining and admitting into their own body, or licensing, all persons who proposed to practise medicine in the limits of their jurisdiction, touching their skill, after examination by the president and censors, all of whom were supposed to be themselves of good education, and of sufficient age and experience to qualify them as judges of the fitness of candidates.”

and children should not have a reasonable chance of relief in the diseases of child-birth and of early life.*

“It would hardly be believed possible in a civilised land, if it did not stand recorded in the bye-laws of the College, that any persons, at any time, could have had sufficient influence upon so learned a body (and who were, therefore, less liable to prejudice) to induce a majority of them to accede to a prohibitory bye-law by which the Fellows of the College are compelled to exclude themselves from practising midwifery, and, therefore, from acquiring much knowledge of the diseases of infants and children. It seems to be a law calculated for the perpetuation of ignorance, by preventing men of the best education and the highest attainments in learning from adding to the stock of medical knowledge on subjects most dear and important to society.”

The second chapter is on the structure of the mouth and organs of digestion in children, and the diet proper for them at different times. The most important part of this is what relates to wet-nurses, and the mortality of their own children, whilst the foster-child is so carefully preserved.

“As the matter, however, stands at present, it is hardly a question whether society at large is a gainer or loser by the employment of hired wet nurses. If the child lives for which the wet nurse is invited, by the prospect of present gain, to forsake her own, the child of the wet nurse often dies, or it becomes diseased or crippled. Her other children are neglected, and her husband, for want of her society, becomes drunken and profligate: she rarely returns home contented with her former station, but compares her present privations with the indulgencies which she has left: the whole comfort of the labouring man's fire-side is broken up, and society has only exchanged the life of one child for that of another, with all the disadvantages above enumerated. †

“On

* The immortal discoverer of the circulation (in whose praise an oration is annually delivered in the College of Physicians) appears, from passages in his works, to have practised midwifery himself, and therefore feelingly expresses himself on the point of the low state of midwifery in his time. “*Melius profecto cum pauperculis res agitur, iisque quæ furtim gravidæ factæ clanculum pariunt, nullius obstetricis advocata opera.*”—Harv. de Partu.”

† From the consideration of the prodigious mortality of the children of wet nurses,* Dr. Denman, and some other physicians and surgeons, practising midwifery, of whom the writer was one, a few years ago, endeavoured to establish an asylum where the children of wet nurses might be received and nursed, and voluntary subscriptions were very liberally made for the support of it;

but

“* In some families six, in others eight, wet nurses had lost their own children.”

“On the whole it would be better, perhaps, that the children of the wealthy should be brought up artificially where the mother does not suckle, because they would have every advantage of good nursing, cleanliness, air, and medical treatment, and would, therefore, have a better chance of living than the child of the wet nurse, who will want all these advantages.”

This is among the many kind attempts of benevolent people to do a wonderful deal of good, and to seek for sources overlooked by others. Are there not children of poverty enough already; and are parents so careless of their offspring likely to bring them up with the same advantages to society as those who, from affection, interest, or ambition, are anxious to live a second time in their posterity? But, if the lives of these unhappy creatures are at all events to be preserved, let it be by a tax on the wealthy, who, by their large and tempting bribes, deprive the natural offspring of their true birth-right. Let no person of fortune engage a wet nurse without paying a certain sum to an establishment where the child, thus deprived of its proper food, may at least have a vicarious mother. Dr. Clarke might have extended his moral remarks a little further, and in this religious age have descanted on the immorality of preferring the mothers of base-born children, whose fathers are not likely to be troublesome, thus giving encouragement in vice and misery!

A valuable chapter on Dentition follows. This commences, like most works of practical importance in the present day, with a reference to Mr. Hunter, who, we are told, has given all the information necessary or useful concerning the process of dentition. Those, therefore, who wish for a scientific knowledge of the subject, are, of course, referred to the grand source of all modern pathology. The author's own remarks, we need not say, are judicious, but we are obliged to add that they cannot be compressed.

The next subject which attracts our author's attention is convulsions, “a vague term,” as he observes, “comprehending a number of diseases,” arising from irregular action in almost every part of the bodies of infants. The disease is very accurately described, and the more common causes pointed out; after which we have some valuable practical remarks on a peculiar species of convulsion in very young children. One general conclusion, drawn from the whole,

but it was found that the expenditure was too great to be supported by private munificence; and the projectors had the mortification of being compelled to relinquish the plan altogether, for want of sufficient means to uphold it.

is,

is, that in every case of convulsion, be the cause what it may, the brain is at the time organically affected either directly or indirectly. This chapter is the more valuable, the subject being illustrated with some very apposite cases. The treatment of these complaints follow, in which the causes are very properly enlarged upon as the means of directing our practice. The whole concludes with a proper caution against the use of unknown compounds, or quack medicines in general.

A very important chapter follows on Phrenitis, or Inflammation of the Brain; a complaint certainly much more common than has till lately been suspected, and even at this time too often overlooked, or passed over under the unfortunate term typhus, or some such expression, undefinable, but easily retained by the nurses. All the symptoms are most correctly described, and the high sensibility of the subject in the early stages of the disease is nicely contrasted with the subsequent torpor. This cannot be too much insisted on, as by parity of reasoning we may easily understand how, in the early stage of chronic hydrocephalus, the child is often found superior in intellect to its equals in age. We cannot follow our author through the whole of this chapter, which may be said to contain a complete history of the disease, and the mode of treatment, so free from all adventitious matter, that it becomes impossible to compress it more than the author; and to offer a partial quotation, without any introductory matter, would not be doing justice to such a composition. There is a note, however, which, being detached, we may venture to transcribe; and it is with much reluctance that we feel obliged at least to question the accuracy of Dr. Clarke on a subject, the causes of which he has had so many opportunities of tracing, and has so well availed himself of all.

“**Squinting (says he) in all cases, is probably owing to some pressure upon the origin of the nerves supplying the muscles of the eyes, and not, as some have imagined, to the two eyes not having the same focus. It does not appear how this should paralyze the retracting muscles, or give an increase of strength to the adductor muscles, either of which is equivalent to the other.—In the evolution of the brain, or the growth of the basis of the skull, however, some irregularity in the degree of pressure on the nerves may arise, which may affect the muscles to which they belong.—Squinting is certainly, like many other disorganizations, hereditary; and the writer has known instances where children of squinting parents first shewed a disposition to squint at nearly the same age as the parent had done, and this several years after birth, without any symptom of oppressed brain having occurred.**

In such cases it may be presumed that the pressure is entirely partial."

It is not from any disposition to attack the only weak point of a well-digested whole, (the too common error of our fraternity,) that we offer the following remark; but we conceive what we are going to offer particularly necessary, because it refers to a practical caution within the management of any one, but especially incumbent on the medical attendant. Children who, for a length of time, have had one eye only inflamed, which has, in consequence, been constantly protected from the light, contract the habit, from necessity, of viewing objects with only one eye. If this has happened at an early age, the sympathy between the eyes is not so confirmed as to produce a constant motion in one corresponding with the other: the inflamed eye will become gradually motionless, and, when the inflammation has ceased, the habit of looking at objects with one eye will continue, and the recovered eye will remain motionless. In this case, squinting arises entirely from the different situation of the two globes, and is easily cured by obliging the young patient to keep his head fixed, whilst he is directed to view an object on the side of the fixed eye. At first he attempts to see it with the moveable eye, but, finding that impracticable, if his curiosity is artfully excited, he will at last bring the fixed eye into motion, and the other, retaining its sympathies, will follow. There is a very good paper in the *Philosophical Transactions* on this subject. We have introduced it, not to show our superior attention to the subject, but as an illustration of another part of this valuable chapter, in which the author shows, in a pointed as well as most candid manner, the means by which some kind of paralytic limbs may be recovered. Speaking of limbs paralyzed in consequence of effusion during inflammation, Dr. C. remarks,

"Though it is contrary to the practice pursued by many mechanics, it appears to the writer to be best to make the support on the inside of the leg, by which means the flexor muscles will be prevented from acting together, and this will give a better chance for a more equal antagonization of the two sets of muscles, than if the support is made on the outside, in which case the peronæi will have nothing to do, and (like other inactive muscles) they will lose the little power which they before possessed.—For the same reason, no more support should be given than is barely sufficient to produce the effect.

"If no means are employed early, the parts will accommodate themselves to their new unnatural state, and no art can replace them afterwards, in the greatest number of cases; yet the writer has known an instance where a man, who had been a cripple from
his

his childhood, was enabled, by machinery, to walk with a stick, after he had attained the age of puberty. Much will depend upon the exertion of the patient in all such cases, and applying the mind intently to the paralysed limb, by which means the power of action may be sometimes regained, even in cases apparently hopeless.*

The few passages we have selected, and even the few objections we have started, will show the care with which this chapter has been compiled. As it contains the most common of all the acute, and frequently incurable, diseases of infants, we cannot be sufficiently thankful for the remarks of so valuable a writer. The whole leads to the consideration of such diseases as are the usual consequence of the various stages of phrenitis, if the early symptoms should not prove fatal: these are idiotism, paralysis, and epilepsy. For the reasons above assigned, we shall not attempt to shorten, or mutilate by extracts, the valuable matter contained in this concluding chapter of the FIRST PART.

After what we have said, it must be unnecessary to recommend the work: we shall conclude as we began, by expressing our earnest wish that the second part may appear as soon as possible.

MEDICAL AND PHILOSOPHICAL INTELLIGENCE.

Royal Society.—On Thursday, December 7, a paper by Dr. REID CLANNY was read, giving an account of his lamp for the security of colliers against fire-damp. He has constructed it of such a size that it may be put into the great-coat pocket. It may be made of copper for £1 14s. and of block-tin for 17s. A piece of mechanism at a low price is attached to the bellows, capable of supplying the lamp with air for an hour. Dr. Clanny relates a set of trials made in an apartment filled with carbureted hydrogen gas to the exploding point, and in a coal-mine the air of which was in the same state. In both cases the air within the lamp exploded, and the lamp was extinguished, but the external air was not in the least affected.

He shewed by a set of experiments, that by attending to the proper mode of supplying the lamp with air, the candle will continue to burn even when the carbureted hydrogen within the lamp explodes. Dr. Clanny states in this paper that the expence for steel mills in many collieries is much greater than would be requisite to light the mine by means of his lamp. In one mine, he says, it amounts to £30 a week. Dr. Clanny likewise gave an account

* * This idea first occurred to the acute mind of Mr. John Hunter.

of the numerous explosions that have taken place in the neighbourhood of Newcastle, and of the opposition which he has encountered in attempting to introduce his lamp into the coal-mines in the district in which he resides.

At the meeting, January 11, a paper by Sir H. DAVY was read, giving an account of a new method of preventing explosions of coal-mines from fire-damp. His method is to surround the flame of the lamp or candle with a wire sieve, the meshes of which amount to at least 250 in an inch. Such a sieve completely prevents the explosion from setting fire to the gas on the outside of it, even though the most inflammable mixtures of gases, as oxygen and hydrogen be present. This is certainly one of the most extraordinary and unaccountable facts connected with the propagation of heat and combustion. It is possible (supposing the fact to be correct) that so great an attraction may exist between the wires and the air surrounding them, that the internal combustion and expansion is not able to displace it. If we suppose such a fixedness to exist, it would account for the explosion not kindling the surrounding mixture on the outside of the sieve. This contrivance (supposing it effectual) would completely answer the purposes of the miner. Such sieves might be made for a halfpenny a-piece, and they would not in the least obstruct the light, or prevent the candle from being used by the miner as it is at present; whereas the bulk, and little light given out by the lamps, constitutes a serious objection to their use.

Linnæan Society.—On Tuesday, December 5, the remainder of Dr. ACHARIUS's paper describing two new genera of lichens was concluded.

A curious paper was likewise read, giving an account of the ancient inhabitants of Guadaloupe near the spot where the fossil human skeleton was found. Two different tribes existed, to whom the writer of the paper gives the names of Caribes and Galipees. About the year 1710 they quarrelled, and a battle was fought between them on the spot where the skeleton was found. The Galipees were routed, and disappeared in consequence, having no doubt emigrated. The author seems to conceive that the skeletons of the warriors slain in that battle were speedily encrusted with the calcareous sand of the place, and that this recently formed stone constitutes the rock in which the fossil skeleton was found.

On Tuesday, December 19, a paper was read endeavouring to explain the way in which the rock containing the Guadaloupe skeleton was agglutinated. It contained, likewise, an enumeration of the different species of shells and madrepores the fragments of which occur in the rock.

At the same meeting a paper by Dr. MACBRIDE, of South Carolina, was read, giving an account of the fly-catching qualities of the leaves of the *Saracenia flava* and *adunca*. These leaves constitute a kind of tube with an operculum at the top. They contain a saccharine

charine liquid, which allures the insect. It lingers some time on the margin of the leaf, but at last ventures in, and is drowned in the liquid, being unable to make its way up the tube, which is beset with hairs pointing downwards, and preventing its escape. The number of flies destroyed by falling into these leaves is very great. They are sometimes placed in rooms for the purpose of getting rid of flies.

On Tuesday, January 16, 1816, a paper by M. RICHARD, of the French Institute, was read, containing a description of two new species of American plants, the *xylopiæ sericea* and *oxandra laurifolia*.

Royal Institute of France.—Greek, Latin, and French Edition of the Fifteen Books of the Elements, and the Book of the Data of Euclid, by M. PEYRARD. Commissioners MM. Prony and Delambre, reporter.

The Class had already given its approbation to a complete translation of all the works of Euclid remaining to us. M. Peyrard, author of this book, had compared the twenty-three Greek manuscripts which are in the king's library. The result of this comparison was, that none of these manuscripts is entirely conformable to the Oxford edition; that this edition, which is considered the best, and which is without doubt the most beautiful, is only, as far as the Greek text goes, a copy of the edition of Bale, from which it has taken even the most obvious faults; that most part of the manuscripts offer variations which fill up some blanks or elucidate some passages of the two principal editions; but that in general all these manuscripts differ little from each other, but considerably from the oldest manuscript marked No. 190, and taken from the library of the Vatican, from which it was sent into France by M. Monge. The text in it appears more pure, more clear, less prolix, and more intelligible. M. Peyrard has attached himself chiefly to this manuscript, and has mostly followed it in the edition of the Greek text, which he has joined to his Latin and French translations.

At the request of his Excellency the Minister of the Interior, the Class has named a commission to examine the fidelity of the translation, and the merit of the numerous variations which M. Peyrard has introduced into the text, or rejected at the end of the work. Another commission of the class of history and ancient literature had been at the same time invited by the minister to consider the new translation relative to style and execution. The reporters of both classes, after several conferences, were of the same opinion respecting the utility of the new edition. The Class of sciences heard and approved a long report in which the edition of M. Peyrard was examined in the greatest detail, and the conclusion of which is, that this edition is evidently superior to every other, and that the author has done every thing in his power to render it worthy of appearing under the auspices of the king, to whom it is dedicated.

Report of the City of London Truss Society.

Patients relieved by this Society in 1808	-----	227
1809	-----	570
1810	-----	813
1811	-----	1094
1812	-----	1600
1813	-----	1800
1814	-----	2064
1815	-----	2473

10,707

Of these, 6 females each had umbilical and double femoral hernia, 1 female had large ventral and double femoral hernia, 5 females had umbilical and ventral hernia, 1 female had ventral and prolapsus uteri, 6 females had umbilical and single femoral hernia, 3 females had right inguinal congenital hernia, 2 females had left inguinal and right femoral hernia, 1 female had left femoral and right obturator hernia, 4 females had ventral and single femoral hernia, 1 female had double femoral and right inguinal hernia, 1 female had double inguinal and umbilical hernia, 1 female had right inguinal and ventral hernia, 1 female had left inguinal and left femoral hernia.

Eighteen males each had left femoral and right inguinal hernia, 3 males had left inguinal and left femoral hernia, 12 males had left inguinal and right femoral hernia, 7 males had double inguinal and right femoral hernia, 6 males had double inguinal and left femoral hernia, 4 males had right inguinal and right femoral, 2 males each had double inguinal and double femoral hernia, 2 males had double femoral and right inguinal hernia, 3 males had ventral and right inguinal hernia, 1 male had ventral and right femoral hernia, 2 males had ventral and left inguinal hernia, 1 male had ventral and double inguinal hernia, 1 male had left inguinal, umbilical, and ventral hernia; 1 male had umbilical and left inguinal hernia, 1 male had umbilical and left femoral hernia, 1 male had umbilical and right femoral hernia, 8 males each had umbilical and double inguinal hernia, 2 males had double femoral and right inguinal hernia; 528 patients had congenital hernia; 5 males had very large varicose veins on the abdomen.

The Medical Benevolent Society.—The distinguishing feature of this Society is, the advantage, during life, of the Medical Practitioner, who shall (from misfortunes, to which all are exposed in the most successful practice, and even in the vigour of health) become an object for benevolence.

The following are the fundamental principles upon which the Society is proposed to be founded:

Any physician, surgeon, or apothecary, residing and regularly practising his profession within England or Wales, is eligible to be admitted into the Society.

The Society to be under the management of a President, and of a Court of eighteen Directors, to be elected by the members at large,

large, three of whom are to go out of office annually, in rotation, and the vacancies to be filled at a general court of members; and of three Treasurers.

Every member of the Society, being of the medical profession, shall be eligible to the direction.

After the formation of the Society, every candidate must be proposed by two members to the court of directors, and his admission be determined by ballot.

Every member, upon his admission, shall pay the sum of one guinea, besides his subscription.

A Benevolent Fund is to be formed, and supported by voluntary benefactions, and by subscriptions of any sum not less than a guinea annually. This fund may also be augmented from the bequests of the affluent.

Any member who shall have contributed to the Benevolent Fund, or to the Annuitant Fund hereafter mentioned, to the amount of *twenty-five guineas* at one payment, or *thirty guineas* by subscriptions, may, if in distressed circumstances, although he may not have attained the age of sixty years, be relieved from that fund, at the discretion of the court of directors; but in no case shall such relief exceed the sum of 30*l.* in one year.

No disbursement shall be made from the fund of the Society, except for the necessary expences, until the Society has been established *ten* years.

All bequests, benefactions, and voluntary subscriptions, to be appropriated solely to the Benevolent Fund.

Contributors, who are *not* of the medical profession, to be considered as honorary members only; and to have no vote in the appropriation of the fund.

The accounts of the Society to be submitted to the members at certain general courts.

The laws for the future regulation of the concerns of the Society will be arranged when a court of directors is appointed, by whom, when digested, they will be submitted to a general court of subscribers, for approval and confirmation.

It having appeared, also, from the various communications which the committee has had the opportunities of receiving, that something in the way of an Annuitant Society would be extremely beneficial, Mr. Morgan, of the Equitable Assurance Society, was requested to draw up a table, which is annexed, in order to shew any medical gentleman at what rate of payment he may secure to himself an annuity, sufficient to place him above the pressure of want, when he is sixty years of age.

It is intended that every member who subscribes to the Annuitant Fund, according to the proposed scale of insurance, and upon otherwise conforming to the rules of the Society, shall have, at sixty years of age, an annuity, which will at least be 50*l.*; and that a certain part of the accumulated profits of the Annuitant Fund shall be applied, from time to time, at the discretion of the court of directors, to the increase of the annuities.

It will be seen, by the table, that at whatever age a subscriber to the Annuitant Fund enters, he will have to pay annually, till he is sixty, the sum placed against his age in the column of *annual payments*; or, if he be disposed to subscribe, *at once*, the sum against his age in the column of *single payments*, he has nothing ever after to pay; and in either way, at sixty years of age, will be entitled, not by *benevolence*, but by *right*, to the annuity for the remainder of his life, provided he has been a subscriber ten years.

Many societies, for the same premiums, may offer as high an annuity; but the system of other societies is never to give a larger annuity than the one subscribed for. The plan here proposed is calculated to secure, not 50*l.* per annum only, but leads to the expectation of an annuity of much greater magnitude; because the profits arising from the payments will, as often as it can be safely done, be applied to the increase of the annuity:—thus, instead of 50*l.*, it may be double, or even more. Of course the Annuitant Fund, and the profits of it, must be strictly applied to the advantages only of the subscribers to it; and, as the directors of the Society will receive the subscriptions, and invest them in proper securities, hence little additional expence will be incurred in the management.

*Table shewing the Sum to be paid at one Payment, or the Sum to be paid Annually, in order to secure an Annuity of 50*l.* to the Subscriber during the remainder of his Life, after having attained the Age of Sixty.*

AGE.	SINGLE PAYMENT.		ANNUAL PAYMENT.		AGE.	SINGLE PAYMENT.		ANNUAL PAYMENT.	
	£.	s.	£.	s.		£.	s.	£.	s.
23	43	18	2	19	42	130	12	12	16
24	46	8	3	3	43	138	18	14	3
25	49	0	3	8	44	147	18	15	11
26	52	0	3	12	45	157	8	17	8
27	55	10	3	18	46	167	16	19	5
28	58	0	4	3	47	178	18	21	15
29	61	4	4	9	48	190	18	24	3
30	65	0	4	16	49	203	16	27	17
31	68	16	5	5	50	217	16	31	11
32	74	14	5	15	51	209	7	26	12
33	76	16	6	1	52	200	17	25	14
34	81	6	6	9	53	192	4	24	14
35	88	10	6	19	54	183	11	23	14
36	91	6	7	10	55	174	14	22	14
37	96	16	8	4	56	165	18	21	14
38	102	14	8	18	57	156	19	20	12
39	109	0	9	15	58	148	0	19	12
40	115	10	10	11	59	138	19	18	10
41	122	16	11	13	60	129	18	17	10

(Signed)

WILLIAM MORGAN.

Any

Any person being above *fifty* years of age may subscribe to the Annuitant Fund, as well as to the Benevolent Fund.

The payments to be made from fifty to sixty years of age are now added.

Wednesday, the 14th of February, 1816.—This day being the anniversary of the late John Hunter's birth, was celebrated at the Royal College of Surgeons in the usual form. Mr. Cline, the master, was, according to custom, the orator on the occasion. His oration was throughout extempore; he began by remarking the great antiquity of the Art of Surgery, from the mention of it by Homer. From that time to the date of Hippocrates no writings appear to shew us the progress of surgery. We cannot, therefore, ascertain how far that venerable writer invented what appears under his name, or whether he collected the improvements of his predecessors.—A number of names are quoted by subsequent writers, but nothing worthy of notice has survived till Galen appeared. This Mr. Cline conceived might arise from the writings of Galen, containing the complete state of the art to his day, and thus lessening the importance of every thing that appeared between Hippocrates and himself. A just tribute was paid to Celsus, who it was observed collected most of his remarks from the Greek writers.

After this general view of ancient surgery, Mr. Cline described the great advantages derived by the moderns from a knowledge of human anatomy and the erection of public hospitals, all of which had become schools of surgery. An historical account followed of the two royal hospitals, St. Bartholomew's and St. Thomas's, and also of Guy's, the work of an individual during his life-time. The hospitals supported by subscription in London, and the principal county towns were also considered as sources of improvement in surgery. The orator next adverted to those characters whose writings were well known to the audience. Wiseman was the first in order, after whom he enumerated all those who had rendered themselves conspicuous in his (Mr. Cline's) hospital, beginning with Cheselden, and ending with Else his own immediate predecessor in the anatomical chair. He apologized for selecting only the name of Percival Pott from the other royal hospital, those of the Borough being his own acquaintance.

After paying every tribute of respect to that able surgeon and eloquent writer, he made a solemn pause before he introduced that illustrious name whose memory it was his duty on this occasion in a particular manner to respect. Premising a short history of his professional life, he first adverted to the commencement of his education at the age of twenty, under his brother Dr. William Hunter; this afforded an opportunity of descanting on the merits of that eloquent lecturer and accurate demonstrator. In pursuing the progress of J. Hunter, he described his services in the army, which never interfered with his physiological pursuits; he dwelt much upon the genius and industry of the man who, besides his important discoveries, had made seventeen thousand preparations

in human and comparative anatomy, and to illustrate diseases in medicine and surgery. He remarked at the same time, that constant as his employment was, he had been often heard to say, that his greatest pleasure was *to think*. After many other equally judicious and pointed encomiums, he again felicitated his country on the number of its public hospitals, and, most of all, on the freedom of its constitution, which enabled every one to present to the public his opinions, his discoveries, and his improvements. Without this fortunate concurrence of events, Mr. Hunter might never have acquired his knowledge, or might have been prevented from its communication.

The oration was given throughout in flowing and rounded periods, in eloquent and perspicuous language, and with great animation. The theatre was of course crowded, but the greatest order prevailed, — Sir William Blizard particularly enjoining that no sounds of approbation should be expressed.

The following interesting little case (on which we venture a few remarks) is extracted from the last Number of the Repository.

“A. B. a healthy young man, complained of a swelling and pain in the right side of the tongue. I examined it, but felt by no means certain what was the nature of the swelling. In a few days, there was an evident fluctuation; and, upon plunging the lancet into the tumour, a discharge of well-formed pus flowed. I observed that the tumefaction did not extend beyond the central line of the tongue; the other side being of the natural size and appearance. The abscess healed, and my patient was discharged well.

“However, in a few days after, he called again, and complained of a similar swelling and pain on the left side of the tongue. On examination, it presented the same appearances as the other side on his first application. It preserved precisely the same course, was confined to that side only, suppurated, was opened, discharged about the same quantity of pus; and as soon healed.”

Though we are not perfectly satisfied of the certainly of the conclusions drawn from the above case, yet we are willing to admit it among the collateral proofs that speech, as well as hearing and seeing, is endowed with double organs, no otherwise dependant on each other than from habitual sympathy. Our only objection is, that two distinct abscesses might be formed on the surface of, or even in the substance of the same muscle, divided only by the adhesive inflammation of Mr. Hunter; but this we mention merely to shew that further proofs are wanting, not to lessen the force of the above as far as it goes; and, as in the present instance, an important practical inference may be drawn, we are willing to give the argument all the force it will admit, and to strengthen it by the cases which introduce our inferences.

After many cases of hemiplegia, it is found that every power is recovered, excepting the speech. Perhaps, when we speak of a perfect recovery, our language may be, on most occasions, too strong.

The paralytic limbs may recover sufficiently for the common purposes of life, and, if the eye or ear has been affected, its imperfect recovery may gradually be supplied by the improved power of the corresponding organs, or by their proving sufficient for all the wants of the patient. But the sympathies between the two sides of the tongue must be so early confirmed, so perpetual, so instantaneous, and so invariable, that the slightest incapacity on one side must very much embarrass the free use of the whole organ, because one side cannot remain torpid whilst the other is acting. Hence we find men whose intellect, and, as far as we can judge, whose senses and muscular powers seem quite recovered, rarely recover their original powers of speech, if they have been at all paralysed. The elocution is not only slower and more embarrassed, but they actually seem to speak as if they had something superfluous in their mouths, and something which impedes the free motion of the tongue.—Would it, therefore, if, after a careful examination, less sensibility should be found on one side of the tongue than on the other, be desirable at least to explain to the patient an opinion of the cause of his remaining inability to express himself, and leave it to his decision, whether so much of the paralysed side shall be taken away as may enable him to move the remainder with as little impediment as possible?—*Edit. of the Lond. Med. Journ.*

An American Indian Warm Bath, which was found successful in a Case of Rheumatism that resisted the usual Remedies.—For this purpose, a hole, about four feet deep and three in diameter, was dug in the earth, and heated well by a large fire in the bottom of it. The fire was then taken out, and an arch formed over the hole, by means of willow poles, and covered with several blankets, so as to make a perfect awning. The patient, being stripped naked, was seated under this on a bench, with a piece of board for his feet; and, with a jug of water, we sprinkled the bottom and sides of the hole, so as to keep up as hot a steam as he could bear. After remaining twenty minutes in this situation, he was taken out, immediately plunged twice in cold water, and brought back to the hole, where he received the vapour bath. During all this time he drank copiously a strong infusion of Horse-mint. At the end of three quarters of an hour, he was again withdrawn from the hole, carefully wrapped, and suffered to cool gradually. This operation was performed yesterday; and this morning he walked about, and is nearly free from pain.—*Lewis and Clarke's Travels to the Source of the Missouri River, &c.*

A. M. MASSA, a modeller in plaster, is exhibiting at Paris the heads of famous capital felons. This is one of the results of the lectures of the renowned Dr. Gall, who seems to have excited a much stronger sensation in France than in London.—*Times Newspaper.*

On the above we cannot help regretting the manner in which Spurzheim has been used in some of the periodical journals of this

town. A man of superior intellect, who has discovered and demonstrated what was never before suspected in that important organ, the brain, and whose discovery has been adopted by Sir Everard Home, V. P. of the Royal Society, in a paper read before that learned body, has been treated, not with contempt,—we can hardly use so gentle a term as obloquy,—but with the coarsest abuse, for opinions, some of which are certainly but ill supported. But should not common candour, not to say decency, have given some credit to a professor, a man of science, a scholar, and a free communicator, for a most important discovery, the novelty of which may have betrayed him, like other discoverers, into some eccentricities.

The Hottentot Venus, it appears from the French papers, died in Paris last week, after an illness of eight days. Her malady is said to have been the small-pox, which the physicians mistook successively for a catarrh, a pleurisy, and a dropsy of the chest. The Professors of the Museum of Natural History have procured the body, and are dissecting it for the gratification of the curious, or, as they term it, for the benefit of science. *Bell's (Sunday) Weekly Messenger*, Jan. 7, 1816.

We have since heard this account confirmed by one who was the companion of her voyage from Africa. From the same source we learn, that she often expressed a great horror of the small-pox, which always proved dreadfully fatal whenever it invaded her district. On her first arrival in London, when she was seen by the Prince Regent, in company with Dr. Baillie, the latter strongly importuned her to be vaccinated, but without success.

The following is our medical intelligence from the Continent. Amongst it will be found some interesting articles. If others are less so, our readers may be assured that we have not been negligent in our selection.

Dr. FRANK, in Vienna, relates the following case of a gardener's wife near Vienna, who, after having been tormented for seven whole years with an almost uninterrupted and very painful head-ach, at last had been relieved by a lucky chance. She was twenty-four years of age, not subject to any kind of sickness, when she began to be seized with a very troublesome and frequent returning head-ach, which gradually became more violent, drove her almost to despair, and extended over the whole head; even to the *maxilla inferior*. This head-ach was intermittent; sometimes the patient suffered uninterruptedly for two or three months, and at others the pain was but slight. During this period, the patient not only felt a dryness in the nostrils, but also a very troublesome sensation of an entire stoppage in those parts. The physicians being now of opinion that all possible remedies had been exhausted, she was advised by one of them only to take a pinch of snuff frequently. This soon caused a very moderate secretion of phlegm, for which reason
the

the patient resolved to heighten the irritative power of the snuff, by mixing it with a little marjoram and assafœtida, both which articles she had in the house. Soon after the use of this sternutatory, on blowing her nose, a living worm dropped out, which, according to her description, perfectly resembled the common grub. The complaint still continuing with equal violence, she concluded, perhaps, still more worms might exist, and therefore resolved to increase the portion of assafœtida in the snuff, when, soon after, five worms more, similar, in every respect, to the above, issued from the nose; and some days after, three more made their appearance; and, in short, forty-eight worms were gradually voided through the nose, then followed a vast quantity of phlegm, and even several pieces of pseudo-membranes: the head-ach was, for the most part, gone; only a painful sensation remained for some time, which, however, some months after, quite disappeared. Dr. Frank is inclined to suppose these worms had their seat in the sinus frontales, in the two antra highmoreana, and the cavum naricum, which supposition seems to be, in some measure confirmed by the patient's feeling much pain in the ossa frontis, which induced her to take the resolution of having several teeth successively drawn. He also thinks the constant irritation of the worms in these parts might have brought on a chronic inflammation, productive of the pseudo-membranes voided after the worms.

According to the most recent observations of Dr. MURSINNA, at Berlin, the efficacy of the application of bark, combined with cinnamon, in intermittent fevers, immediately before the fit is coming on, which was recommended by Dr. Nasse, has again been experienced. Mr. Mursinna treated a lady suffering, for a considerable time, under a larvated [obscure] intermittent fever, with a variety of remedies, even with the Solutio arsenicalis, though without any effect. Many relapses having taken place, Mr. M. prescribed half a drachm of bark, with ten grains of cinnamon, to be taken in wine and water, directly before the attack, which was now much shorter than before. Next day the same dose was repeated, just before the fit was expected, which was not only of very short duration, but became almost imperceptible. After the third dose, not the least attack of the fever succeeded.

Prof. KERN, at Vienna, endeavours to prove, that the operation of piercing the tympanum can only produce the wished for effect in such cases where deafness is occasioned by a too thick tympanum, immoveable ossa auditus, an entire want of the same; by a too thick immoveable foramen ovale, or rather of the membranes shutting the same; or by a stoppage of the tuba Eustachii. In every other case where deafness originates in a faulty formation of the organs that are to receive the impression caused by the vibrations, or are to reflect this impression when received, the piercing of the tympanum cannot be of any avail. However, as it is but rarely hurtful, this expedient may be resorted to in dubious cases.

[The remaining articles in our next.]

Mr.

Mr. Fox, Surgeon-Dentist, Argyle-street, will commence his Lectures on the Structure and Diseases of the Teeth, on Friday, March 1st, at half-past five o'clock in the evening, in the Medical Theatre, Guy's Hospital.

Mr. CLARKE will commence his next Course of Lectures on Midwifery and the Diseases of Women and Children, on Monday, March 18th. The Lectures are read every morning from a quarter past ten to a quarter past eleven, for the convenience of students attending the Hospitals.

REPORT OF DISEASES.

THE town has scarcely recovered from the sudden frost, and as sudden thaw. Catarrhs have been nearly as obstinate as during the severest winters, and have an highly inflammatory aspect, even among the oldest and apparently most debilitated. Children suffer exceedingly with hooping cough, scarlatina, and measles. Small-pox has greatly subsided: probably the late alarm has induced mothers to adopt vaccination with less scruple, and, consequently, with less delay. Phrenitis among children, if not more common, is certainly more noticed. Some cases have fallen under the inspection of the Reporter, in which the antiphlogistic plan was pursued with due vigour in the commencement, yet they proved fatal: others have been relieved by the same treatment. If such children are old enough to be bled by a vein, a prognosis may often be formed, by the appearance of the blood. If the symptoms are severe, and the blood coagulates imperfectly, leaving a large portion of loose crassamentum, we can have but little hopes. Still, however, we have no remedy but bleeding, free doses of calomel, and semicupium. Blistering, if used at all, should be at a distance from the head.

All the above remarks are applicable to croup, which is only high inflammation in a different part, and which has occurred very often during the two spring months of the present year. Ophthalmia has not been less violent, especially among children, and required the same bold treatment to preserve an organ so important for beauty and use. In one case of this kind, in a girl not more than twelve years old, it was found necessary to renew the application of four leeches three times in twenty-four hours, though the subsequent bleeding was considerable each time, and though cathartics were administered with the same freedom.

Dyspepsia, with apparently a chronic inflammation of the stomach, has been more frequent than usual. Some cases of two or three years standing have been relieved by repeated gentle bleedings. Alkalies, particularly magnesia, have been found very serviceable, with aromatics, and daily portions of warm water, taken like the Bath waters.

Typhus, of which we hear much in the neighbouring counties, is at present scarcely known in London.

METEOROLOGICAL REGISTER.

From January the 25th, to February the 26th, 1816.
Kept by C. BLUNT, Philosophical Instrument Maker, No. 38, Tavistock-Street, Covent-Garden.

Moon.	Day.	Wind.	Barometrical Pressure.			Temperature.			
			Max.	Min.	Mean.	Max.	Min.	Mean.	
	26	NE	29.42	29.35	29.38	50	34	42.25	Rain
	27	N	29.82	29.66	29.74	48	27	38.5	Fair
	28	N	29.90	29.89	29.50	47	21	37.25	Fair
☉	29	N	30.40	30.38	30.38	46	16	33.	Fair
	30	N	30.49	30.46	30.47	44	18	29.75	Fair
	31	NW	30.37	30.22	30.28	42	21	29.	Fair
	1	NW	30.02	29.88	29.93	41	20	28.	Fair
	2	NW	29.73	29.59	29.65	42	27	33.5	Fog & Rain
	3	NW	29.62	29.58	29.59	45	31	38.7	Fair
	4	N	29.57	29.56	29.56	44	32	39.25	Rain
	5	NE	29.52	29.50	29.51	46	32	39.5	Fair
☾	6	NE	29.22	29.12	29.13	47	28	36.	Snow
	7	NE	29.40	29.12	29.23	40	17	29.5	Snow
	8	NE	29.54	29.42	29.48	30	11	21.75	Fair
	9	NE	29.74	29.72	29.73	25	9	18.	Fair
	10	NE	29.88	29.76	29.82	24	10	18.	Fair
	11	NW	30.00	29.89	29.45	38	15	21.75	Fair
	12	N	30.38	30.20	30.34	30	16	36.25	Fair
☉	13	N	30.43	30.42	30.42	43	27	34.75	Fair
	14	W	30.45	30.43	30.44	42	30	36.	Fair
	15	W	30.43	30.28	30.35	46	33	39.5	Fair
	16	N	30.05	29.86	29.95	45	31	38.	Fair
	17	N	30.07	29.94	30.	40	27	33.5	Fair
	18	W	30.12	30.08	30.10	39	28	33.5	Fair
	19	W	30.10	30.	30.05	48	38	43.	Fair
☾	20	W	30.14	30.10	30.12	48	35	41.5	Fair
	21	W	30.20	30.16	30.18	50	37	43.5	Fair
	22	SW	30.25	30.20	30.23	50	36	43.	Fair
	23	W	30.32	30.22	30.27	50	32	41.	Fair
	24	NW	30.21	30.19	30.20	47	35	41.	Rain
	25	W	30.00	29.90	29.95	50	33	41.5	Rain

RESULTS.

Mean barometrical pressure of the month 30.065
 Maximum 30.49, wind at N
 Minimum 29.12, " " NE
 Mean temperature of the month 34.8 deg.
 Maximum 50, wind at W
 Minimum 9, " " NE

Scale exhibiting the prevailing Winds during the Month.

N NE E SE S SW W NW
 9 7 0 0 0 1 8 6

	Mean barometrical pressure.	Mean temperature.
From the last quarter on the 21st Jan. to the new moon on the 29th	29.55	40.78
new moon on the 29th Jan. to the first quarter on the 6th Feb.	29.79	34.22
first quarter on the 6th, to the full moon on the 13th	29.78	25.71
full moon on the 13th, to the last quarter on the 20th	30.14	37.8

MONTHLY

MONTHLY CATALOGUE OF MEDICAL BOOKS.

A SYSTEM of Materia Medica and Pharmacy; including Translations of the London, Edinburgh, and Dublin Pharmacopœias. By John Murray, M.D. Third edition, in 2 vols. 8vo.—Longman and Co.

The Edinburgh New Dispensatory. By Andrew Duncan, jun. M.D. The eighth edition; 8vo.—Longman and Co.

A General System of Toxicology; or a Treatise on Poisons drawn from the Mineral, Vegetable, and Animal Kingdoms; considered as to their Relations with Physiology, Pathology, and Medical Jurisprudence. By M. P. Orfila. Translated from the French. Vol. I. Part 2. 8vo.—Cox and Son.

Dr. Cullen's Practice of Physic, with Notes, explanatory and practical. By Robert John Thornton, M.D. 12mo.—Cox and Son.

A Compendium of Anatomy, Human and Comparative, intended principally for the use of Students. 4 vols. 8vo. with plates. The sixth edition, enlarged and improved. By Andrew Fyfe.

An Epitome of Juridical or Forensic Medicine, for the Use of Medical Men, Coroners, and Barristers. By George Edward Male, M.D. 8vo.—Underwood.

Practical Observations on the Cure of Wounds and Ulcers on the Legs, without Rest; illustrated with Cases. By Thomas Whately. Second edition; 8vo.—Callow.

Observations on Gout and Acute Rheumatism; containing an Account of a safe, easy, and effectual Remedy for those Diseases. By C. Wilson, M.D.—Underwood.

NOTICES TO CORRESPONDENTS.

We are obliged to our Bath correspondent for his hint, which, however, he must be aware, is not new. We fear also that the manner in which he has introduced the preface to a popular work, however meritorious that work may be, will have the air of a puff direct.

Mr. NORMAN's promised reply to Dr. Kinglake is received; and we regret that it appears to some of us too severe in a few expressions. Also Communications from Dr. BERNE, Mr. R. WALKER, AN ARMY SURGEON, A. Z., J. V., &c. &c. have come to hand.

THE LONDON
Medical and Physical Journal.

4 OF VOL. XXXV.] APRIL, 1816. [NO. 206.

“ For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work to which the Faculty in EUROPE and AMERICA were under deeper obligations than to the Medical and Physical Journal of London, now forming a long, but an invaluable, series.”—RUSH.

For the London Medical and Physical Journal.

On Scurvy; by T. TROTTER, M.D.

A THIRD EDITION of my “ Observations on Scurvy” has, for some time, been called for; but it was thought advisable to delay it till the conclusion of hostilities, when the whole experience obtained during the last twenty years of war might be brought into one view. It will, therefore, oblige me, by making your pages the medium of conveying my intention to such naval medical officers as may wish to favour me with their correspondence on the Prevention and Cure of Scurvy.

This may be the last opportunity which may ever be offered to me of engaging in a professional enquiry connected with public service, and I should like to do it all the justice in my power. I shall ever bless Divine Providence for having placed me in the station of Physician to the Fleet when the general scurvy appeared, in every ship on the home station, in the severe winter of 179 $\frac{1}{2}$. It then fell to my lot to see my own precepts exemplified on a larger scale of practice than may again happen to any succeeding physician. From this period are we to date the *total extirpation* of scurvy from his Majesty’s ships; and while I do justice to my own official duty, with much pleasure I shall record the faithful exertions of every naval officer, and I can never sufficiently praise the unwearied zeal and ability of the surgeons on this arduous occasion.

At this time, the scene at Spithead was highly interesting, as well from its effects as from its novelty. After the most disgusting opposition from particular departments of office, I at last obtained every article in full quantity which I demanded. Lemons and oranges were sent to us by *express*

in light waggons; and a supply of forty hundred-weight of *fresh salad* was obtained daily in the immediate neighbourhood of Portsmouth. Cruizing squadrons were supplied for their expected time at sea; and not a single ship was rendered inactive. From the nature of the service, in which a great part of the fleet was constantly detached upon, it was seven months before the *taint* of scurvy could be said to be fairly eradicated; during which time, upwards of 30,000 cases underwent the ordeal of cure, in their own ships, and without a single death! For the first time, a British fleet beheld the ceremony of an hospital ship firing a gun at noon, to dispense the stores of health to a scorbutic navy.

From this time large tracts of ground, near the naval ports, were converted into gardens; and I received the discretionary power from the Admiralty to order any quantity of vegetables in season for ships returning from long cruizes. A few years after this occurrence, the elegant preparation of the lemon by Mr. Coxwell, of Temple Bar, was put to the test of experiment, and found to answer all the purposes of the fresh lemon in the cure of scurvy. It would have afforded me great pleasure to have contributed to Mr. Coxwell's appointment as a naval chemist, in order to have superseded by his Concrete Acid every other form, as being easily portable, and liable to no changes by keeping;* but Lord Howe was now dead, and with him seems to have set the sun of improvement in the medical department of the royal navy.

Without some arrangements of the kind mentioned above, it would have been utterly impracticable for our fleets to keep the sea for the length of time often done; or to have sustained the incessant and laborious duty of a general blockade. In the home seas, and in cold climates, the scurvy is chiefly prevalent. If we compare the extent of our naval armaments for the last twenty years, with what we have seen and heard of former wars, at a moderate calculation, not less than the lives of 80,000 seamen have been saved in scurvy only, by these changes. Besides, the strength of body and muscular power were preserved, for wielding with effect a heavy artillery in the day of battle; for it is observed in this disease, that a brave man becomes a physical coward. Thus were our ships kept full of men,

* Every ship and vessel going out on foreign voyages should carry with them this *Concrete Acid of Lemon*. I recommended it long ago to the India Directors; but I am much afraid their ships will continue to suffer from scurvy.

while our merchant vessels were little molested by impressing, compared with former times. It is, therefore, of much importance that our successors should be informed of the horrors which the service has escaped from, that it may avoid such evils in the event of future wars.

The years 1794-5 form an epoch in the medical history of the British navy. A contagion, spread from the French prisoners taken on the 1st of June, the most extensive of the kind ever known in a fleet, was subdued without exciting the smallest alarm in the country; while the means of safety were rendered familiar to the officer, and interwoven with permanent discipline. The prevention and cure of scurvy were fixt on an establishment for the supply of vegetables and fruits in season, as permanent naval stores. The royal hospital were surveyed, and searched in every department; and a new system introduced. The improvement of medical pay was begun. Regular sick apartments, with bedding and utensils, &c. were first granted. Comforts for the use of the sick in their own ships were improved to the utmost. The hospital ship of the fleet was new modelled: it carried to sea, besides the ship's provisions, all the fruits and vegetables in season; live-stock; pickles; Seville oranges made into marmalade; Port and Lisbon wine; porter; cyder; tea, coffee, cocoa; sugar; eggs for puddings, &c.; and in 1797 a milch cow was embarked. To these may be added, the abolition of the disgraceful fine of 15s. levied on the seaman, and paid to the surgeon, for the cure of the venereal disease. On the whole, compared with former times, the sick-bed of the seaman was made a bed of comfort.

I must embrace the opportunity now afforded me in this address, to remind the profession, that, during the last twenty years of war, it has been the lot of our fleets and armies to be employed in seas and countries where a British force was never before known. Now the history of health in these situations must have exhibited many facts of importance, as well as novelty. Would it not, therefore, be worthy of the glory which our arms have acquired, to preserve the knowledge thus obtained from sinking to oblivion? Having thrown out this hint for others to act upon, with much confidence I look to Sir James M'Gregor, at the head of the army medical department, for its completion; and my friend Robert Jackson, who has just returned from another Anson-voyage, on the fevers of the West Indies.

The British navy has again to bewail the direction of its medical department passing to another of the inferior boards. If the Admiralty could not find medical officers in the navy qualified to form a board of science, to watch the duties of the

the sick bed, it might have spared the service the mortification of seeing its surgeons put under the command of a *few superannuated pursers*, by taking the appointments and patronage under its own wing. What member of the profession but must view these transfers with disgust! No wonder that an officer of my rank should have been followed to retirement by the *persecution of office*, while such a spirit continues to direct the navy.

I must beg my correspondents will be kind enough to *frank* their communications, for I have incurred an enormous expence from this cause since I retired.

Newcastle; March, 1816.

For the London Medical and Physical Journal.

On the Heart, and the Stimuli by which its Actions are excited; illustrated by Experiments.

THE heart is that viscus by whose agency in the circulation every function of the animal economy is supported; for, when its action ceases, every function is suspended. It is muscular in the human body, of a conical figure, and divided into two cavities, for the reception of the blood from the veins, and for its retention until the ventricles are enabled to receive it. Each of these cavities is provided with a vestibulum or antichamber, technically termed auricles, which are constantly supplying the ventricles with blood. Alternately with the contraction of the auricles, the ventricles having their parietes distended with this fluid, and being endowed with a considerable thickness of muscular fibre, violently contract, and by their contraction evacuate their cavities in a degree proportionate to their dimension. The contraction of the ventricles of the heart, during which time the arteries are replenished, is termed the systole; and that space of time which elapses betwixt the systole, and during which the contracted fibres are returning to a state of relaxation, is called the diastole: during the diastole the ventricles are replenished by the auricles.

But, notwithstanding, by ocular demonstration, we are enabled to ascertain that the actions of the heart thus successively take place, we are still at a loss satisfactorily to explain the mode which Nature has pursued for the production of these contractions, and the rendering the actions of this viscus regular and perpetual during life. An illustration, therefore, of this subject, is the object which I hold in view, and which, I trust, from its importance, will frame
a sufficient

a sufficient apology for the sacrifice I am making of your valuable pages.

The mind (or, with greater propriety I may say, the will) certainly possesses no influence either in retarding or accelerating the action of the heart. The muscular fibres entering into the composition of its structure, are consequently termed involuntary. To become acquainted, therefore, with the laws to which fibres of this denomination are obedient, is the first and indispensable measure for the completion of the task which I have undertaken.

Involuntary muscular fibres can never act but through the medium of a stimulus, and it is requisite that the operations of this stimulus upon the fibre shall be such as are capable of producing in it an uneasy state.

When, from any cause, the uneasy state of a muscular fibre is induced, it invariably contracts, and in that state remains until the renewal of the exciting principle be effected.

Consequently, the immediate object of its contraction is to relieve itself from its uneasy state; and, when this object is obtained, its relaxation follows. The bladder, having the muscular fibres of its parietes thrown into a state of uneasiness, either by their preternatural distension, or by the irritative quality of the urinary fluid, contracts, and thus removes the stimulus, by its evacuation, when the fibres relax to their natural state. The number of conditions or states, therefore, to which involuntary muscular fibres are reducible, is three:

1st, The natural or relaxed state which they at all times enjoy when in a state of rest.

2d, The uneasy state, or that which is consequent to the operations of any stimulus; and

3dly, The contracted, or that which is invariably sequential to the uneasy state.

Concerning the nature of the stimulus by the operations of which the contractions of the muscular fibres of the heart are produced, and by the cessation of whose operations they alternately relax to their natural state, as great a diversity of opinions continues to exist as with respect to any one subject in physiology.

The immediate contraction the muscular fibres of the ventricle experience upon a propulsion of a supply of blood from the correspondent auricle; their subsequent return to the easy relaxed state, when they have effected the partial evacuation of their cavity; and, lastly, the destruction to the functions of either ventricle, when, by a ligature, the flow of blood into its cavity is impeded, are weighty arguments in favour of a supposition, that the presence of the blood is actually

actually necessary for inducing the contraction of these involuntary fibres. Accordingly, it has been the received opinion, that the quality of the blood is such as to throw into an uneasy state, and thus to produce the contraction of the fibres of the several cavities; but to the admission of this theory numerous are the objections, one of which only will be here mentioned, as it is sufficient to direct our decision.

Supposing that the stimulus by which the heart's action is produced to exist in the quality of the fluid, it would certainly follow (as is the case) that upon the reception of a supply of blood by either of its cavities, the fibres of which the parietes of this cavity are composed should be brought into their contracted state; and thus, by diminishing its diameter, a quantity of that fluid, proportionate to the extent of the diminution, should be evacuated. Now, as the quantity of the blood which, at every contraction of these cavities, is expelled, is only proportionate to the extent of its diametrical diminution; as the action of their parietes is never so complete as entirely to obliterate the cavity; and, as Mr. Hunter observes, that, at every systole, only two-thirds of the contents of the ventricle are expelled,—it is evident that the ventricles are never emptied; and, that, at every contraction of their parietes, they are brought into contact, for the expulsion of the part, with the remainder of the blood which was not expelled. How does it then not happen that this irritative quality of the blood does not continue its operations? that when the fibres are contracted, and forced against the residue of the stimulating fluid, the same cause does not continue to produce the same effect, so as to maintain the contracted state of the muscular fibres, instead of permitting them again to retire by relaxation to their natural easy state, and thus to transgress the most invariable law, that of continuing to contract as long as the cause of contraction continues to urge. If, therefore, this theory be admitted, it is evident that the stimulus by which the heart's action is produced does not consist in the irritative property of the circulating fluid.

Another theory which has been advanced on this subject was founded on the supposition, that, in consequence of the alternate supply of blood which the coronary arteries receive with the rest of the system, the muscular fibres of the heart were at one time in possession, and at another void of irritability, and, therefore, their states of contraction and relaxation were alternated; but this will not account for the action of the auricles being alternate with that of the ventricles, besides which, it may be ascertained by experiment

that

that the coronary arteries receive their supply synchronous with the rest of the system.

With as little foundation has it been supposed, as the nerve (by whose influence the muscular fibres of the heart have been generally considered to be rendered capable of receiving the necessary impressions for the production of their contracted state) lies immediately betwixt the two large arteries arising from the heart, that the ventricles, at every contraction, may become so dilated as to compress the nerve, thus to paralyze for a moment the muscular structure of that viscus, and produce the relaxation of its fibres. For although, at this time, (I mean when the ventricles have contracted,) they may be permitted to be returned to their state of relaxation, having accomplished their object in the supply of the two large arteries, the action of the auricles immediately becomes necessary for the replenishment of the ventricle, and this action would be incapable of being produced, if the muscular fibres of the heart were, subsequently to contraction of the ventricle, thrown into a state of paralysis. But, supposing for a moment that the compression caused by the dilatation of the two arteries on this nerve should be capable of paralyzing the ventricles alone, and the action of the auricles continue at this period unabated, how, when the quantity of the blood in the arteries is lessened, and the compression thereby renewed, is the action of the ventricle again produced? for, although, for the sake of argument, and contrary to all example, it should be allowed that the mere compression of a nerve is capable of producing so instantaneous a relaxation of the muscular fibres it supplies, how is it possible that the mere removal of that compression can be capable of inducing the immediate contraction of those fibres? for, notwithstanding the compression of a nerve will ultimately produce a paralysis of the fibres which it supplies, the removal of that compression can only restore to them the power, which, in their natural state, they should possess, of receiving the impression necessary to their contraction; and can never be productive of their contraction itself. Moreover, it is ascertained by the experiment of Borelli, that the muscular fibres of the heart are not wholly indebted to the brain as the source of its nerves, for these identical nerves, the compression of which, compatibly with this system, is considered to be productive of the temporary paralysis of its fibres, may be totally annihilated, and the action of the heart still continue unabated; but a sufficient objection to the admission of this theory is, that in the human subject, by the more remote situation of these nerves from the arteries, the former cannot be in the least influenced by compression

pression in the dilatation (even if there were any, which there is much reason to doubt) of the latter.

The opinion which Mr. Hunter has entertained with respect to the nature of the stimulus which was productive of the heart's action, is explained in the following quotation:

“The alternate contraction and dilatation of the heart constitutes a part of the circulation, and the whole takes place in consequence of a necessity, the constitution demanding it; and, becoming the *stimulus*, it is rather, therefore, the want of repletion, making a *negative impression* on the constitution, than the immediate application of something to the heart itself.

“This we see wherever a constant supply or some kind of aid is wanting, in consequence of some action: thus we have as regularly the stimulus for respiration,—no sooner is one act performed than an immediate demand takes place for another; and thus we have the stimulus of want of food, which is regularly produced when in health.”

Now, with all due deference to the superior abilities of Mr. Hunter, I am of opinion that his mode of reasoning is rather calculated to conceal than to explain the real cause by which the heart's action is produced.

We know that every other function which is performed by the action of involuntary muscles, can only be effected by those muscles being reduced to an uneasy state, and we are unacquainted with the possibility of this state being produced in any fibres of the involuntary determination, but by the action of some stimulus capable of being topically applied to their surface, or of so operating, for instance, as, by extension, to be productive of an uneasy sensation. And, although Mr. Hunter observes, that the stimulus for respiration is regularly produced, and no sooner is one act performed than an immediate demand for another takes place, yet it may be perceived that it is not the mere demand from the constitution which is capable of becoming the stimulus to this effect, but that it is the state of uneasiness or oppression, which, if felt in the chest, in consequence of the lungs becoming loaded with blood unfit for circulation, by which respiration is invited, and by compliance with which effort the oppression is removed. Neither is it reasonable to suppose, upon a due consideration of the effects which are produced, that hunger is simply and nothing more than a negative impression made in consequence of a demand from the constitution: did hunger never exceed the limits of the necessity or demand from the constitution for repletion, few would be the number of our apoplectic patients, and still fewer would be those who, during a state of plethora
and

and fullness of blood, have their regular calls for food, whilst no demand on the part of the constitution can exist. It is, therefore, reasonable to suppose that the immediate cause of hunger is the effect of some topical impression made upon the alimentary canal, either by the alteration of its parietes during the continuance of the peristaltic motion, in consequence of its emptiness, or the action of the gastric or enteric juice upon the living matter.

Notwithstanding the refutation which the very arguments that, for the establishment of this doctrine, Mr. Hunter has produced, let us, *argumenti causâ*, suppose, the demand which the constitution is perpetually making for the repletion of the vascular system, to be the stimulus by which the action of the heart is regularly produced.

If the demand which the constitution makes upon the heart be the stimulus which is productive of its action, it follows, that in proportion to the demand or necessity of the constitution, so will be the stimulus; and does it not also follow, that, in proportion to the demand or stimulus, so should be the action? Now, as the quantity of blood which, at every systole of the ventricles, cannot be subjected to much variety from the usual determinate extent of its diametrical diminution, it consequently happens that wherever an extraordinary demand for a repletion of the circulating system takes place on the part of the constitution, the only method by which this viscus can become equal to the demand made upon it, is by accelerating its action. It cannot but be evident to every considerate person, who for a moment reflects upon the necessity of a supply of blood for a due performance of every function, that the demand for this supply would be proportionably greater with the parts to be supplied; and, consequently, in the larger animals, than those of inferior magnitude; and, *consideratis considerandis*, that the action of the heart will become more frequent, being unable to meet the necessity but by the increase of its rapidity.

Supposing, then, the two foregoing points to be established, viz. that, in proportion to the magnitude of the parts to be supplied, so will be the demand from the constitution for repletion augmented; and 2dly, that, as the extent of the dimensions of the ventricles is subjected but to little variety, so as materially to augment or diminish the evacuations which are made from their cavities at every systole, that every extraordinary demand being made upon the heart from the constitution can only be obeyed by the increased velocity of its contractions,—we will proceed to the analysis of the validity of Mr. Hunter's opinion.

The heart of a horse does not contract more frequently than 36 times in a minute; whilst that of a man, *cæteris paribus*, seldom fails to exceed 70 or 72.

In a man, eight feet high, the pulse does not exceed 60; whilst in one who is only four feet in height, the heart acts 75 times in the space of a minute.

Now, as the magnitude of the parts to be supplied in the horse must certainly treble those of an ordinary sized man, it follows that the demand from the constitution is three times as great; the stimulus, consequently, being trebly extensive, the action of the heart should be three times as frequent. The number of times, therefore, which the heart would be necessitated to act in the space of a minute, to overcome the necessity or demand from the constitution, in the case of the horse, instead of being only 36, should equal three times that of a man, being 72, which would amount to 216.

In inflammatory fevers, does the action of the heart never take place but from the constitutional demands operating as the stimulus? In plethora, when the demand from the constitution on the heart must be very sparing, does it often happen that the pulse becomes less frequent? From the due consideration of the preceding objections, and the incapacity of the supporters of such a doctrine to account for the alternate action of the auricles and ventricles, the increase of rapidity of the heart's action, when, by an augmented supply of blood, its irritability is increased; and the cessation which its action experiences, when, from a deficiency, its irritability is diminished, as in ossification of the coronary arteries, which seem to imply that topical impression must necessarily be made upon the parietes of the ventricles themselves to produce their contraction, the fallacy of Mr. Hunter's doctrine seems implied.

[To be continued in the next Number, in which will be introduced the outlines of another System, &c. &c. with an experimental illustration of the subject.]

For the London Medical and Physical Journal.

Hints to the Editors; by A. Z.

YOU have exemplified, in some criticisms in your last Number on cruel and useless experiments, that "authors, before they write, should read." It would, indeed, save them much unnecessary trouble, and much valuable

luable time to their readers. Too many are so fond of appearing in print, or so desirous of converting a book into an advertisement, that the press is loaded with knowledge familiar to every one. Even your valuable publication is sometimes taxed with such unnecessary information: for who, in these enlightened days, requires to be informed that large and repeated venæsection is a principal remedy in pleurisies,—or that vaccination is not always a security against the small-pox? Yet, I believe, few well-informed practitioners doubt, if the last was universally practised at an early age, that the small-pox would, in a few years, be unknown. I hope, therefore, that gentlemen will be more sparing of their communications, unless they have some new observations to offer, or some practice to reform. Space will then remain for the insertion of valuable information from various medical and philosophical publications, both at home and abroad,—publications which cannot be generally procured in this country. I am an old practitioner, yet I am still eager for information; but cannot want to be told what almost every medical author has written. Medical knowledge is progressive, and therefore time should not be wasted on subjects well known to every reader.

Feb. 18, 1816.

We are extremely obliged by the judicious remarks of our venerable correspondent, and the more so, as they contain hints we should feel a backwardness in offering to gentlemen to whom we are under obligations for so many former valuable practical lessons. We trust A. Z. does not mean to accuse us of want of diligence in collecting all the information in our power from books, from reports, and even from conversations. Whenever he sees occasion to remind us of deficiency in any of these points, we shall thankfully avail ourselves of his instructions.

Meanwhile, from so old a practitioner, and from one so eager for information, we cannot help expressing a wish for some useful communication, not only for the amusement of his Nestorean brethren, but for the advantage of our younger correspondents and readers.—EDIT.

For the London Medical and Physical Journal.

On Contagion; by an ARMY SURGEON.

IF my knowledge of the late communications upon the subject of Precautions against Contagion is not deficient, I believe that the means employed in places where pestilential diseases are prevailing, consists, at present, in
attention

attention to cleanliness, and destroying of contagious effluvia by fumigations. I wish, therefore, to submit it to the judgment of the Editors of the Medical and Physical Journal, whether or not there is room to offer the suggestion of a preventitive medicine in addition to the above means. Such could, perhaps, be no where better sought after than in the antiseptic property of the mineral acids. A palatable drink or linctus made with the muriatic acid, and taken daily in any quantity under what may affect the health, might be proposed with this view; and it is probable that the use of the mineral acids internally would be found to have a greater influence in preserving health in infected places and quarantines than any external means whatsoever.

Jersey; Jan. 1816.

For the London Medical and Physical Journal.

On Mania; by Mr. RICHARD WALKER.

MANIA, as is well known, arises from various causes, viz. from a natural organic affection of the brain, which, of course, is incurable by art; and likewise from incidental causes, as injuries, plethora, effusion, &c. which, for the most part, admit of a cure or palliation by art.

Mania arises sometimes from a cause purely mental, and sometimes, as I presume, from metastasis, viz. the translation of a morbid humour from some other part to the head, as in gout, erysipelas, &c. To these alone I mean to confine the present observations.

Mania from metastasis arises ordinarily, I think, from mismanagement either on the part of the professional attendant, the patient himself, or his ordinary attendants; but, in some instances, even under the best management, in consequence of circumstances peculiar to the natural state of the patient, not in every instance to be counteracted.

I by no means intend it should be understood that the translation of a morbid humour, as in gout, erysipelas, &c. from some other part to the head, will necessarily produce a derangement of intellect; but, that it sometimes occurs from this cause, especially when conjoined with other aiding circumstances, I have no doubt, although there be no natural disposition to that affection, in like manner as we occasionally find to be the case from excessive drinking.*

* I am disposed to think, however, that in every instance of mania proceeding from these causes, there is a natural predisposing or remote cause existing in the system, viz. a more than ordinary disposition to excitement, or irritability of mind.

The mismanagement to which I allude, on the part of the professional attendant, is by any irregular treatment respecting the administration of internal medicines, improper regimen, or the application to the part itself. With respect to these, I shall briefly observe here, that whoever attempts to check or remove a paroxysm of gout, a severe attack of erysipelas, or, in fact, any humour whatever, especially if generated by the constitutional habit of the person, by any topical means, not consisting in such as might have the power of extracting or carrying off the humour from the habit itself, runs the risk of placing his patient in a very perilous situation, by inducing a translocation of such morbid matter to a vital part, viz. the head, chest, &c.

With respect to the management of the patient himself, or his ordinary attendants,—this most commonly consists in a mistaken notion that strong stimulating articles, as brandy, &c. are necessary during a violent inflammatory state of the part from gout, to keep it out of the stomach, as they say; which is not only adding fuel to fire, respecting the complaint itself, but, in the end, by debilitating the habit in general, and the stomach in particular, is the readiest means of producing the effect they intended to obviate; and, moreover, renders the stomach, and the system altogether, less susceptible of the effect of such a stimulus when it may be absolutely required.

Metastasis from gout, unless induced by improper management, occurs more commonly towards the natural termination of a regular fit of gout; that is, when the affection is become torpid, and less fixed to the part affected, and the habit in general debilitated. At which time particular attention is sometimes required, especially in elderly or debilitated persons, to keep it in place till it is quite exhausted or dissipated, and prevent its migrating to other parts—then, and then only, that is, when there is a tendency in the gout to leave the part affected prematurely, is the time for a more cordial as well as invigorating regimen. The regimen and mode of living in general, in gout, must be adapted to the age, constitution, and temperament of the patient: in a young, athletic, or inflammatory patient, there is little danger to be apprehended, but much benefit to be derived, from a moderately low regimen; in a habit the reverse of this, a uniform invigorating regimen, with a due portion of cordials, may be necessary, to keep the gouty affection in its fittest place, carefully avoiding, however, undue excitation.

An extraordinary instance of metastasis, as I take it, but from a different cause, has lately occurred to me. A young gentleman

gentleman became my patient for a venereal complaint: the history of the case is briefly this,—he had contracted a venereal complaint about two years before, commencing with chancres, succeeded by buboes in each groin and venereal sore throat; in addition to which, he had a very peculiar affection of the lips, particularly the lower lip, consisting in an exudation of a humour which hardened into a thickish dark-coloured crust, or scab, which, as often as it became dry and separated, was successively renewed.

He had used mercury under the care of a professional gentleman in the country, in the course of which the chancres healed and the buboes burst, but did not heal perfectly; and the lips were no better.

When, in this state, I was first applied to respecting him, my opinion was, as I then stated, that, although there was reason to apprehend there might be some venereal taint remaining, that the affection was not exclusively venereal, but that there was naturally a scorbutic affection in the habit.

I put him under a course of mercurial frictions for about three weeks or a month, at Oxford, by which time the buboes were nearly healed, and his lips somewhat better. Being under the necessity now of retiring to the country, he was directed to pursue the same plan. He came over to me occasionally, appeared to be going on well in every respect excepting the lips, which I had told him I apprehended was not venereal; and that, should this continue after he was in other respects well, I should advise him to try the sea-water. In a short time after, he wrote me word he was perfectly well. I desired him to persist in the application of the medicine some time longer, and to diminish it gradually for some time before entirely relinquishing it.

A fresh tumour, however, appearing in one groin, which came to maturity and burst, and his lips being no better, he became my patient in Oxford on Oct. 27th, 1815. Under the present circumstances, I put him upon a fresh course of mercurial frictions, with the intention of eradicating entirely the venereal virus by a steady cautious perseverance in the specific. In about a fortnight the effect of the mercury became sensible by the breath, gum, &c. and in fact reached an extent beyond what I had intended, viz. a very considerable affection of the mouth, with a copious ptyalism, which compelled me to desist the further use of mercury for the present. In a short time, however, perceiving that the sore of the bubo had receded rather during the interval the mercury was suspended, I resumed it again, when the sore again evidently improved.

About this time he shewed me a tumour on the other
L I 2 groin,

groin, of considerable size, hard, not discoloured, and in an indolent state. I directed him now to apply the principal portion (viz. Unguent. Hydrarg. ʒi. o. n.) of the mercury on the thigh of this side, applying a linseed poultice. The tumour still remaining stationary in every respect, I changed this application for the Empl. Ammoniac. cum Hydrarg., renewing it occasionally: this quickly produced a blush on the tumour, with some degree of pain, and it soon burst, discharged properly, and diminished in size; the lips, however, continued nearly in the same state.

Finding, as it now appeared to himself as well as me, that matters were going on as well as could be expected, (the lips excepted, which I had all along apprehended to be inherent in the constitution,) he was directed to continue the use of the mercury, which was so managed, ever since his resuming it, as to keep up only a slight affection of the mouth, which I intended to persist in until the tumour in the groin might heal,—watching, likewise, the effects on the lips.

In a short time he observed to me, that his lips felt better, and that he had no doubt himself (being adverse to my opinion that there was something scorbutic in his habit) that they, as well as his other complaints, would become well by a continued course of the mercury.

In a short time after, I perceived myself that the lips were better, and they became actually well, returning to a perfectly natural state. In a few days after this, however, he exhibited to others evident signs of derangement in the mind, which soon became evident to me, though he continued apparently rational to me after his attendants had perceived him to be otherwise. The derangement of mind increased, accompanied with violent raving;—he became exhausted, and expired.

Observations on this case.—It is probable that the following combination of causes concurred in producing the melancholy event: the general debility in the habit, the consequence of a long-continued course of mercury necessary to conquer a venereal affection of long standing, viz. a period of two years, complicated as it was; probably, with a natural constitutional affection. The habit thus reduced, and rendered more irritable, being more susceptible of mental impressions than in health, was, as it appeared, acted upon by some circumstances which deeply affected his mind; and, moreover, as I had reason to believe, the system not kept up by a moderately invigorating regimen, which I had directed, from an idea, on his part, that restraint was essential to his cure. These causes, collectively, might operate in occasioning a translation of the scorbutic humour inherent in the habit,

habit, and, as I well know, not radically curable by medicine, to the head; or, it may be possible that the mercury, from the same cause, might, instead of being determined, as usual, to the mouth, or carried off by any other excretory means, exert its influence on the system itself. He was directed, in proportion as the mouth was affected, to drink more or less of diluent liquids.

The mercury of course was desisted from, so soon as this great degree of irritation or mental excitement shewed itself.

The affection, in every respect for which the mercury was applied, was, at the time the mental derangement shewed itself, in as fair a way towards a cure as could be wished, viz. the sore in one groin soundly healed, the other in a fair way, and the lips well; nor had he expressed to me any indisposition in his general health.

The mode of treatment I intended to have adopted, so soon as the derangement of intellect showed itself, would have been, 1st, to have immersed him in the warm bath, placing him afterwards between the blankets, with a view to cleanse his skin of the mercury, and to determine the mercury, if the system were really too strongly impregnated with it, to the surface, and probably to the mouth; 2dly, to have administered opium in small doses, repeating it, and watching its effects, until I might have lulled him to quietness,—which I have repeatedly done in instances of mental derangement, with complete success; and 3dly, conceiving, at this time, that he had lowered himself, contrary to my direction, by spare regimen, &c. endeavour to raise him (for there was evidently a considerable degree of general debility) by a due administration of invigorating diet and cordials, drinking plentifully of warm diluent liquids,*—hoping, by these means, I might, if there was an excess of mercury in the system, bring it externally to the mouth, skin, or other parts; or, if it arose from a translation of a morbid humour of any kind to the head, bring it back, by invigorating the habit, and other auxiliary means, to its former seat, the lips, &c. and in the end restore him, as I have many others, (placed by an apparent metastasis, as in gout, &c. in a very perilous situation, from an atonic cause,) by a similar mode of treatment.

* I at one time suspected that he might not have attended sufficiently to my direction respecting the necessity of supplying the habit, during a course of mercury, with an adequate portion of diluent liquids, a circumstance ever to be attended to; but on enquiry, this apprehension was removed.

It is worthy of notice, that at this time, as well as during the whole of the second course of mercury, his mouth was so little affected, that he could masticate and swallow nearly as well as in health, and his appetite not impaired: hence it was almost impossible for me to apprehend he had received an excess of mercury; moreover his breath was to the last so slightly tainted, as to be scarcely perceptible to any one.

In this mode of treatment, however, I was overruled by others of the faculty, who, under the idea that his present affection, perfect mania, requiring the ordinary confinement on such occasions, was, exclusively of other causes, solely the effect of an excess of mercury, and, notwithstanding the evident debility and apparently sinking state of the patient, purged him incessantly to get rid of it, or carry it off, which, of course, tended still further to lower him; when, in a short time, by the effect of this treatment, together with the continuance of almost incessant raving, he became completely exhausted, and expired.

Conceiving this instance of mania to have been of an atonic nature, I presume that any means used with a view to lower the system would have been injurious; and that even topical blood-letting from the temporal artery, the jugular vein, or by leeches, would not have been justifiable.

With respect to the application of counter-stimulants in affections of this nature, such as vesicatories, sinapisms, &c. these enter so regularly into the ordinary routine of practice, that I need not notice them here.

He was under my care ten weeks, in the course of which time he used about six ounces of Unguent. Hydrarg. of the strength only of one-third part of quicksilver.* He took no internal medicine during this course except Epsom salts, or castor oil, occasionally; and, for a certain time, Decoct. Sarsæ Comp. ℥i. per diem.

According to the circumstances detailed, which I have endeavoured to give in a faithful manner, I should apprehend it will be allowed by all experienced unprejudiced practitioners that the remedy, in this instance, was administered in a cautious and justifiable manner; and that the affection, which unexpectedly occurred, and caused a fatal termination, came on in such an insidious manner that scarcely any practitioner might have been aware of it, whatever may have been the circumstances to which it might be

* The quantity of the unguent used at a time never exceeded a drachm, frequently less; there were likewise occasional interruptions to its use.

attributable. For my own part, I am totally at a loss to conceive how the system can be overcharged with mercury without exhibiting the ordinary evidences of the fact, particularly the mercurial factor of the breath; nor am I aware that mania might be the probable consequence of an excess of mercury in the habit.

Upon the whole, I think, the mania in this instance, as I have noticed, likewise, in other instances, not the effect of medicine of any kind, was attributable, not to any single circumstance alone, but jointly to a diminished vigour of bodily health, together with an increased irritability of mind, influenced or acted upon by circumstances which, perhaps, in the full vigour of health, and whilst pursuing the ordinary avocations in life, would pass disregarded.* The former, in this instance, the unavoidable consequence of the disease and the necessary mode of treatment, and the latter from incidental circumstances with which I am not exactly acquainted; and the remedy, under these circumstances, that which I had proposed to have adopted, as above mentioned.

In consequence of the unexpected length to which the present part of my subject has extended, I shall defer the remainder to another opportunity.

Oxford; Feb. 25, 1816.

P. S.—I observed the Editors' remarks, with the information they contained, annexed to my last paper on Vaccination, with much satisfaction, and wish they might have the effect of reviving the credit of vaccination in such places as it may have sunk in the estimation of the faculty and the public: such is certainly the case at present in Oxford and its vicinity.

Cases of small-pox after vaccination have occurred here since my last communication, to the most experienced and attentive practitioners, which tend still to diminish the credit of that practice, and to extend the practice of inoculation.

* A very remarkable instance of this kind having occurred within my knowledge, I shall briefly mention it. A young person, under this predicament, became maniacal, and died, merely in consequence of a well-meant, but ill-timed, zeal in the attempt to produce in this person a reformation from habits of immorality, which was so far overdone as actually to produce the effect mentioned.

For the London Medical and Physical Journal.

On the best Mode of Applying Leeches;

by J. P. O'BERNE, M.D.

HAVING, for some years, witnessed the very salutary effect of leeches applied in a peculiar (and, I believe, not generally known) manner, I am induced to intrude on your valuable pages; at the same time wish it to be clearly understood that I have not the smallest claim to any merit on the subject, having observed it in print many years ago.

The method is, on applying the leech, to cut off the tail, by which a *much greater* quantity of blood will be obtained than in the ordinary way.

It was particularly observable in a recent case, under a friend of mine, in this neighbourhood.

Chittington, Devon;

Feb. 26, 1816.

Though the above information has appeared already in our Journal, yet we gladly offer so respectable a confirmation of what some of our readers may have overlooked. We shall be obliged to Dr. O'Berne if he can recollect in what publication he met with the remark before the London Medical and Physical Journal.—EDIT.

To the Editors of the London Medical and Physical Journal.

GENTLEMEN,

A REVIEW of my Dispensatory having appeared in the last number of the Medical Repository, in which the writer has spoken of my book as "above his comprehension," I am anxious to obtain the favour of your allowing me the use of your pages for my vindication, as the question at issue is one in which I am inclined to think the medical world feel deeply interested. It is no other than this, What shall be the future language of pharmacy?—I should, therefore, thank you to insert the subjoined letter to Mr. Thomson, and am, sir, with great respect, your much obliged and obedient servant,

SAMUEL ROOTSEY.

Bristol; March 5, 1816.

To A. T. THOMSON, Esq. one of the Editors of the Med. Repository.

SIR,

As your Repository is not an anonymous publication, I have considered that your review of my Dispensatory was entitled to some attention from me. From the circumstance of your being the author of the London Dispensatory and

Conspectus, I anticipated in your review some critical remarks upon a work in which the profession are certainly interested. But what was my surprise at observing, instead of argument and learning, two pages in which you express your astonishment, and write in a style of abuse unworthy of a man of letters. I shall not say that your analysis is quite a reproach to your journal, to your profession, and to your country; but I appeal to the judges of this department of medicine, and to *the dignitaries of the republic of letters*, (for you observe "I cannot use ordinary language,"), whether the Pharmacopœia of the Bristol College, as you have called it, has not contributed to the improvement of pharmacy. In writing upon the subject of nomenclature, I felt myself fettered by certain laws, laws which the learned in all ages and countries have held sacred. Before you understood them, you should not have attempted to speak upon the subject at all. This is not a book-jobbing question, sir, between the Monthly Repository and the Bristol Dispensatory, but a literary question between us. Let it, therefore, be conducted with candour, and not with gasconade.

I will now proceed to notice some errors in your critique, occurring evidently from the haste with which it was written. You have mentioned that I appeared to have two objects in view,—1st. An attempt to apply the doctrine of chemical numbers to pharmacy, which, you say, is premature. 2d. An effort to bring into use a more philosophical language: this you pronounce to be futile. The first object you have totally misunderstood. I have certainly applied chemical numbers of my own to pharmacy; but it is for such as Davy, Wollaston, Dalton, and Dr. Thomson, to say that I have done it prematurely. Besides, sir, if you recollect, you have yourself inserted chemical numbers in your Dispensatory. Those which I have used are corrected according to the present state of chemistry. The numbers which I call pharmaceutical are another kind of logarithms, each expressing the ratio of the menstruum to the solvend. This plan is such, that to give a long formula for making a simple preparation may now be compared to the round-about way of working the rule of three in arithmetic, by addition and subtraction instead of availing ourselves of the utility of multiplication and division. The second object is stated correctly; but I should not have expected that you would have pronounced it futile before you had pointed out its defects, or even comprehended its scope. Because my book was without Greek characters, did you conceive, sir, that it was of no importance to *the vital philosopher*? Because it was small, did you think it beneath your notice? Let it not be said that you cannot labour in the same field without depreciating

preciating the services of others ; that you can do no good, but at the same time you must exhibit your hostility against men of liberal and exalted principles. In transcribing my tables of weights and measures, you have made, in the first line of each, an important mistake, which demands an apology. I cannot pass over in silence the disgraceful manner in which you have given one of my entire pages without prefixing the explanation. By this means you may probably have deceived some of your readers into the idea that it is difficult to be understood ; but you have not added to the respectability of your Repository. Should you or your friends think proper to review my publication again, I hope you will speak as my superiors or my equals, and not as refractory pupils, who are frightened at their task. If you expose my real errors, I will not be backward to confess when I have been "fairly beaten." You have remarked that some of my definitions are peculiar to myself. They all are ; and no other person has yet spoken of them disrespectfully. It remains to be seen whether the readers of other reviews adopt them, or whether we are doomed to cavil for half a century longer without them. With regard to my eccentricities, I confess I have ever conceived all original thoughts to be eccentricities as first ; and is not eccentricity the only test of freedom of thought ? Were not Bacon, Newton, Lavoisier, and Linnæus eccentric ? And was it not absurd in *individuals* to set about such reforms ? Eccentricity thrives upon the hill of science, and common-place in *the valley of Noddledom* ! You conclude by speaking of the chaos that would result from the general adoption of my propositions, whereas they are calculated to remove all confusion, and to put the matter at rest ; but this, to be sure, as you did not understand them, you could not perceive.

As you, sir, have appointed yourself a critic, and a reviewer of the labours of philosophers, consider whether it be not your duty to encourage the literature of your country, to patronize the spirit of philosophy, and to reflect, as extensively as you are able, the light with which *individuals* are endeavouring to illumine the paths of knowledge ; and, instead of shrinking ignominiously from the task of criticising my book, which, you say, "puzzled you not a little," should you not have examined its merits or demerits before you undertook to defame me. If you determine, sir, after this castigation, to review my publication in a proper manner, it may not be amiss to caution you that I am prepared to defend, not only every paragraph, but every line, word, and letter it contains.—I shall now subscribe myself, sir, your's very respectfully,

SAMUEL ROOTSEY.

For

For the London Medical and Physical Journal.

*A remarkable Extra-Uterine Case; by JOSIAH BARTLETT,
M. D. of Charlestown.*

IN October 1807, I was called upon to attend Mrs. S. M. aged twenty, who stated that she had passed the common period of pregnancy with the usual symptoms, and that for several days she had felt what she was told were indications of labour. I visited her occasionally, in expectation of that event, two or three weeks, at which time her size lessened and her symptoms abated. Thus circumstanced, Dr. John Warren visited her in consultation, when it was agreed, to recommend patience, attend to the alimentary canal, and observe the operations of nature. All the appearances of parturition subsided, and she resumed the cares of her family. I frequently saw her until May 1808, when a hard substance was distinctly felt on the right side of the abdomen, a little below the umbilicus, which frequently produced uneasy sensations, especially during menstruation, and continued till the operation which is described in the sequel.

In October 1809, after a natural and easy labour, she was delivered of a healthy full grown child, and recovered without any uncommon symptoms. In November 1812, the same event occurred, and she did as well as before. In February 1815, she was again delivered of a healthy child, and for two weeks was as comfortable as in her former confinements. In each of these labours, I enquired if she suffered any peculiar pain or inconvenience from the tumour in her side, and she always answered in the negative.

March 1st. About this period she became feverish, with a loss of appetite, a diminution of strength, frequent sickness at the stomach and occasional rigours, but had no cough. I visited her every second or third day until the middle of May, during which time, the child was put out to nurse; she took several doses of ipecacuanha, such mild laxatives as regulated the bowels, and various tonic medicines, of which cinchona officinalis was the principal, but without any material change in her situation. She then applied to Dr. Marshall Spring, to whom I had no opportunity to relate the case; but it was stated that he attributed her "great weakness and loss of flesh to the swelling in her side." He prescribed the tincture of sanguinaria canadensis, and ipecacuanha occasionally, as the most suitable emetic, and the powder of cinchona officinalis with conserve of roses, in preference to its being taken in wine, as it had been administered.

June

June 21st. She again applied to me, and stated, that she had gained nothing by changing the form of her medicines, that she was weaker and greatly emaciated, though she was better able to take animal food, wine, &c. than when I last visited her. The bowels were in a good state, but the tumour was more troublesome, and there was a small red spot near the navel. I advised her to suspend the use of medicine, for a few days, and to depend on nourishment.

24th. In the evening, a large quantity of matter, which was so offensive that the family was obliged to leave the room, was discharged from the tumour. On the following morning I made a particular examination; the discharge, which had been copious through the night, was more foetid than any thing I had ever noticed; the opening was but just sufficient to admit a probe, and I distinctly felt bones, about an inch and a half from the surface. In the afternoon she was visited by Dr. Thomas Welsh, and the next morning by Dr. John C. Warren, both of whom confirmed my opinion of feeling the bones.

27th. A consultation was held with the above named gentlemen, Drs. David Townsend, Abraham R. Thompson, and William J. Walker, when it was unanimously agreed, that the only method by which the patient could obtain relief, would be an attempt to remove the remains of a foetus, which we supposed was situated in a sack, formed by an enlargement of the right fallopian tube adhering to the peritonæum. I resorted to this hazardous and uncertain remedy in their presence, and that of three medical students, (Messrs. Gorham Bartlett, John C. Dalton, and Josiah S. Hurd) by enlarging the orifice, to introduce my left fore finger, which, serving as a director, enabled me to dilate the wound, in the course of the linea alba, to such a size as to extract the child, the body of which had been full grown, and seemed to be doubled. The pelvis, (which was first extracted) spine, and ribs, were not disconnected, and there remained a portion of the integuments and viscera, which were too rotten and offensive to dissect; the bones of the head followed in different portions, which with those of the extremities, were removed by repeatedly introducing my hand. The hæmorrhage, during the operation (which the patient bore with great fortitude) was small, and the wound was dressed superficially, without an attempt to unite its edges. Light nourishment was directed, she passed the day comfortably, and at evening took a dose of tinctura opii.

28th. She had a good night. The discharge from the wound, which was dressed twice, was copious, very offensive and tinged with blood. She had a small evacuation of
urine

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urine in the forenoon, and was able to lay on both sides, which had not been the case for a long period. Her diet was light and nutritive; the tinctura opii was directed to be taken in the evening, if necessary, with orders to administer a dose of calcined magnesia early in the morning.

29th. She took the magnesia about twelve o'clock, and passed a comfortable night without the anodyne. At six, A. M. I received information that the medicine had passed by the wound. On visiting her, I found that the discharge was greater, and as offensive as ever, and I feared that it was in part from the intestines. Directed a strong decoction, and the compound tincture of cinchona officinalis to be taken as freely as she could bear. At three, P. M. there was a sudden and copious discharge from the wound, which was similar to that in the morning. Having renewed the dressings, I directed an injection; before evening she had four evacuations from the bowels, in which the magnesia was noticed, and she discharged urine freely, though accompanied with a bearing down, which she said resembled labour pains. She bore the medicine and nourishment, which consisted of wine-whey, punch, broth, &c. and was directed to take an anodyne if she was restless. Her pulse and countenance greatly improved, she was moved without difficulty, and repeatedly stood on her feet.

30th. She took the anodyne in consequence of another discharge from the bowels, and passed a good night. The wound was dressed twice, the discharge as yesterday, but less in quantity; she had evacuations from the bowels and bladder, took the cinchona, wine, &c. regularly, ate moderately of animal food, and passed a good day.

July 1st. She took an anodyne the last evening; her bowels in good order. The matter from the wound, which was dressed twice, less in quantity and much better. At evening she sat up half an hour. The medicine, &c. continued.

2d. She had two evacuations from the bowels; the bearing down, at the discharge of urine, lessened; the appearance and discharge of the wound much improved; dressed morning and evening; she sat up twice this day, and continued the prescriptions.

3d. She took an anodyne last evening, and appeared rather more feeble than yesterday. The state of the wound improving, and the discharge much lessened. She had as usual two alvine evacuations, took animal food more freely, and increased the quantity of cinchona and wine.

4th. She passed the last night and this day very comfortably; the bowels in a good state; the pressing with the discharge

charge of urine subsided; the digestion from the wound good, and it is gradually closing.

5th. The discharge from the wound was so small, and the appearance so favourable, that she required but one dressing. Her strength gaining rapidly under the treatment which was at first adopted, she was able to sit up two or three hours.

I continued to dress the wound daily until the 20th, when it was dressed every second or third day; the quantity of matter being very small. From this period the wound began to cicatrize, and at the date of this communication is so nearly healed, as only to discharge a small quantity of lymph. The patient has roved, visited her neighbours, and is in better health, than during the last eight years.

It should have been noticed, that I frequently injected warm water into the wound, and used alcohol freely over the dressings, which had a good effect in sweetening and strengthening the parts. The gentlemen who attended the operation, and others, called occasionally to notice the progress of the case, and I was much obliged by their attentions.

In the American Magazine, published at Boston in 1746, is related the history of a woman, with an extra uterine foetus from 1731 to 1745, during which period she had six full grown children. In three weeks from her last parturition, there was an opening in the tumour near the navel, from which matter was discharged (about eight ounces in a day) for three months, when a portion of the head of a child was discovered, and some small bones were extracted; an incision was then made and the rest of the bones were removed at different periods, in four days, when the wound was stitched up. She died soon after; and, on dissection, it was ascertained that the foetus had laid in the left fallopian tube, which was greatly distended, and adhered to the peritonæum; the right tube and the uterus were in a healthy state.

In the Massachusetts's Medical Communications, Vol. I. Part III. p. 30, is an interesting account of an extra uterine case, which continued more than seventeen years, during which time the woman had four children and several abortions. She died in 1802, when it appeared on examination, that the "uterus and right fallopian tube were in a sound state; the left tube was greatly enlarged, and from it was taken the bones of a full grown foetus."

These, with the exception of one in 1783, published in the Memoirs of the American Academy of Arts and Sciences, Vol. I. p. 551, where a quantity of hair was taken from an abscess in the abdomen, and a question arose relating to an extra uterine foetus, are the only cases in our Commonwealth

which have come to my knowledge, that bear any resemblance to the one I have now related.

It is remarked by a distinguished writer on obstetrics, that "in the records of medicine there is a very great number of examples of the extra-uterine fœtus, in all of which there may be observed some similarity of circumstances;" that but "few practical remarks have been made on the subject, which can be useful to those who are in the way of meeting with cases of this kind. If an abscess should be formed in the side, or any part of the abdomen, and through the subsequent opening any part of the child should be evacuated, it will then be expedient to forward the exclusion of the remaining parts, either by enlarging the opening, or giving such other assistance, as surgery is very competent to afford."

It is further stated, that "when all the bones" of an extra-uterine fœtus "are evacuated by the intestines or vagina, the parts affected gradually recover from the injury they have sustained, without any remaining mischief, and the patient usually enjoys as perfect health, as if no such accident had happened."

Having examined all the books in my possession, I can find but a single instance where a putrid fœtus was extracted from an abscess in the umbilical region, and the mother was preserved: this is related in Heister's Surgery, Vol. II. Chap. CXIII. "on the cæsarean section."—*New-England Journal*.

For the London Medical and Physical Journal.

On the Art of Midwifery, as exercised by Medical Practitioners, in Reply to Dr. Kinglake; by SAMUEL MERRIMAN, M.D. F.L.S.

"Nusquam magis quam in humanâ generatione variat Natura, et in constanti puerperii actione inconstantiam suam monstrat constantissime."

TH. BARTHOLIN.

THE art of midwifery, as exercised by medical practitioners, has, on various occasions, excited much opposition. In France it was combated by the pious animadversions of Hecquet,* and the declamations of Roussel;† in

* M. Hecquet was the original Dr. Sangrado of Le Sage. He was a very humane and pious man. It is reported of him, that he never prescribed in doubtful cases; without first having recourse to prayer. He published "De l'Indecence aux Hommes d'accoucher les Femmes. 1708."—See *Hutchinson's Biographia Medica*.

† M. Roussel was a physician at Montpellier he published "Systeme physique et moral de la Femme. 1775."

England, Dr. Frank Nicholls* attempted to overturn it by sarcastic irony, and the eccentric Philip Thicknesse† by malevolent aspersions; they were assisted in their laudable endeavours by Mrs. Nihell‡ and Mrs. Stephen,§ two midwives, who, though themselves unable to write, could easily procure others to publish in their names against the men-midwives. That these publications, so full of piety, argument, ridicule, and slander, produced but little of the intended effect, is evident, because the practice of midwifery, by men, has been ever since progressively increasing. It may indeed be contended, as these books were very widely dispersed, and consequently must have occasioned a very rigid investigation into the merits of the male and female practitioners, in every point of view, that the question, as to the propriety of employing men, is already virtually set at rest; and that the accoucheurs are only now preferred to the midwives, because they have been proved to possess greater skill, greater judgment, greater mildness, greater patience, and greater decorum. If the men were very deficient in any one of these qualifications, it cannot be believed that they would be employed by the generality of females.

The discussion of this subject has, however, been lately resumed by Dr. Kinglake, who enters the list as the advocate of the midwives, and expresses himself in strong terms against the accoucheurs.

Dr. Kinglake begins his attack by a letter,|| containing some incontrovertible truths, and not a few erroneous opinions; and this, his first letter, concludes with a rounded period, the gentlemanly expressions of which cannot be too much admired, intimating that midwifery, as at present conducted by men, ought to be abandoned "as a busy, intermeddling, mischievous *craft*."

This letter may be considered as a splenetic effusion,

* Dr. Nicholls was the author of "The Petition of the unborn Babes to the Censors of the Royal College of Physicians of London; 1751."

† Thicknesse, besides many paragraphs, &c. in the newspapers, published the following virulent pamphlets, "The Danger and Immodesty of employing Men-Midwives, &c. 1772;" "Man-Midwifery analysed; 1775;" "Thoughts on the Times, and the Profligacy of Women; 1779;" "Man-Midwifery dissected, by John Blunt, Surgeon; 1793."

‡ "A Treatise on Midwifery, &c. 1760;" published under the name of Mrs. Nihell; was said to be written by her husband, a surgeon.

§ In her name was published, "The Domestic Midwife, 1795;" which was revised, if not written, by P. Thicknesse.

|| London Medical and Physical Journal, vol. 34, p. 290.

which might have been consigned, without a comment, to its merited oblivion; Mr. Wayte, however, and Mr. Atkinson, did Dr. Kinglake the honour of remarking on it, and their remarks have drawn from the Doctor a long and elaborate replication. This, his second paper,* it is my intention to examine, with the view of ascertaining how far the assertions it contains are correct and candid.

It will not, I conceive, be difficult to shew in the first place, that Dr. Kinglake has undertaken to write upon a subject with which he is very little acquainted; and a passage towards the beginning of his letter may be adduced as a proof. Mr. Wayte having instanced the case of the placenta presenting at the os uteri, as one cause among others requiring the attendance of a scientific practitioner, Dr. Kinglake replies, "With regard to the placental presentation, said to occasionally occur, *it appears to me* that the occasion is as rare as a deviation from the natural course can be; indeed, instead of a deviation from, it may be said to be an inversion of, the order of nature, which is a topsyturvy course, not reasonably to be calculated on.If my information be correct, it is not risking too much to say, that there is *not more than one practitioner in a thousand*, in any age, in any country, that has ever met with an instance of it."

Where Dr. Kinglake sought for *correct* information upon this point, we are left to guess; it is however evident, that his inquiries have not been very extensive. Had he taken the trouble of consulting the collections of cases of Mauriceau, of Portal, of Gifford, of Smellie, or of Rigby, he would have seen sufficient cause to think differently. The last author alone, in his very excellent "Essay on the Uterine Hæmorrhage which precedes the delivery of the full-grown Fœtus," 5th edit. gives the histories of *one hundred and six* women attacked with floodings, of which number *forty-three* were cases of attachment of the placenta over the os uteri. The writer of this letter has, in the last sixteen years, met with *eight cases* of presentation of the placenta among his own patients, and has been called into consultation by other practitioners at least *thirteen times* in this kind of accident. How do these facts agree with the Doctor's surmise, that not more than *one practitioner in a thousand* has ever met with this occurrence?

But Dr. Kinglake goes on to say, "it is not *clear* that a placental presentation, unrelieved and unperforated for the manual delivery of the fœtus, would terminate in death."

* London Medical and Physical Journal, vol. 35, p. 174.

It may not be clear to those who have paid but little attention to the subject, just as many occurrences in physic are not clear to the illiterate observer, which are, nevertheless, perfectly known to the well educated surgeon or physician. And it is because the case is not clear to the inattentive accoucheur, or midwife, that so many women have lost their lives from this dreadful accident; but the case was clear enough to Ambrose Paré, to Guillemeau, to Mauriceau, to Puzos, to Roederer, to Gifford, to Hunter, to Denman, to Osborn, to Clarke, to Hamilton, and to all the great masters of the obstetric art; and, therefore, they have taken pains to inculcate the important truth, that to preserve the life of the mother, it is necessary to turn the child, and deliver before her strength is too much exhausted. Dr. Denman says decidedly, "this practice is no longer a matter of partial opinion, on the propriety of which we may think ourselves at liberty to debate: it has, for *near two centuries*, met the consent and approbation of *every practitioner of judgment and reputation* in this and many other countries."

Having thus proved that Dr. Kinglake has deceived himself, in supposing that placental presentations are so extremely rare and so easily managed, I shall proceed to shew that he is no less in an error respecting other occurrences in parturition.

So high an opinion has he of the powers of Nature, in effecting the expulsion of the foetus from the womb, that he seems to consider it scarcely possible for any aid to be required, or to be safely given, during the process of labour; and, in support of this opinion, he says, "It has been ascertained to an extent that sets all questions at rest upon the subject, that medical practitioners, *in full midwifery employ* during upwards of *thirty years*, have never met with an unnatural presentation, have never had an occasion for using an instrument, and have always found the natural efforts equal to all the exigencies of salutary parturition." This is somewhat like the reasoning used by Isaac Massey, the apothecary to Christ's Hospital, and the violent opposer of inoculation, who, to prove that this new practice was unnecessary, argued that the natural small-pox was not of so dangerous a nature as was commonly supposed, for that Sir Hans Sloane, who was the physician to that establishment, had attended *some hundreds* of the children in that disease, and in eight years only lost *one* patient. This one example of singularly good fortune, did not convince the world that the natural small-pox ought not to create alarm; nor will Dr. K.'s singular example prove that parturition is a function always safely performed.

What

What is meant by the term "full midwifery practice," is not very easily understood; it cannot be less than one hundred patients a year, which, in thirty years, amounts to three thousand patients: and the practitioners who have attended three thousand patients without meeting with a single unnatural presentation, and who have always found the natural efforts equal to all the exigencies of the case, must have been fortunate beyond even the most sanguine expectations.

Midwives in general are not so fortunate, though Dr. Kinglake thinks that they are better managers of women in labour than the accoucheurs. Dr. Bland, many years the physician-man-midwife to the Westminster General Dispensary, collected from the registers of that charitable institution, a table of accidents and deaths, which happen in consequence of parturition. This table, drawn from 1897 cases of labours attended by *midwives*, was published in the Philosophical Transactions, and demonstrated that

68 of the women had wrong presentations of the children,
 12-----lingering labours requiring instruments,
 2-----convulsions,
 9-----hæmorrhage, of which 3 died,
 5-----the puerperal fever,
 2-----the puerperal mania,
 1-----suppuration of the vagina and bladder,
 1-----a laceration of the perinæum,
 5-----the œdema lacteum;

so that, of the whole number, "1 in 18 had preternatural or laborious births, or suffered in consequence of labour," and one case in every forty-four "was attended with particular difficulty or danger."

Really, Dr. Kinglake, by bringing forward these fortunate medical practitioners, of thirty years "full midwifery employ," has done much to prove, that it is safer for women in labour to be attended by men than by midwives.

Perhaps Dr. Kinglake may object to the small number of women, only 1897, from which these averages are drawn: I will, therefore, present him with some other averages drawn from larger numbers; still, however, confining myself to the practice of midwives, because he seems to think that when women attend there is less hazard of a departure from Nature.

Madame Boivin, one of the superintendants of the *Hospice de la Maternité*, at Paris, published, in the year 1812, an account of the various Presentations of the Fœtus which occurred in that Hospital among 12,751 patients; from which it appears, that in 109 cases the child's head was in a wrong direction;

direction; in 394 the child presented preternaturally, either with the nates, the feet, the funis, the arm, or in some other way; making, in the whole, one unfavourable presentation, in every *twenty-six* labours.

Again, between the 9th of December, 1799, and the 31st of May, 1809, 17,308 women were delivered in the *Maison d'Accouchemens*, at Paris. Here, too, the average of unfavourable presentations was *one in twenty-six*; and in neither of these accounts are the cases of hæmorrhage, of convulsions, &c. at all noticed. It is stated, however, that of the 17,308 women in the *Maison d'Accouchemens*, *two thousand* were afterwards affected with illness, or some serious accident, and that *seven hundred* of them died. The death of *one* woman out of *every twenty-five* delivered, does not very strongly prove the safety of being attended by *midwives*.

Dr. Kinglake alludes to the successful labours of the Asiatic, the African, and the uncivilized American women, who are for the most part left to spontaneous parturition; and "the historians of those people," it is said, "have not cited any of them as instances of suffering for want of the obstetric practice."

That cases of difficult labour are less frequent among these nations than among Europeans, I shall not attempt to deny; that their labours are always unattended with danger, it would be folly to maintain. Many causes concur to render parturition among them more favourable than among us. These women rarely remain unmarried till the parts destined to the functions of generation and parturition become rigid for want of use. Their minds, being less cultivated, are not so easily affected by external causes as is to be found among the European ladies. They eat less of substantial food; and hence, probably, their children at birth weigh less than the children of these climates. They are not so liable to suffer from the rickets in infancy, and hence escape one of the most common causes of difficult labour. Besides which, we learn from the plates of Professor Camper, that the pelvis of many of these women is larger and shallower than the European; and it is well known that their heads are not so bulky. These seem to be the true reasons why the Asiatic, African, and American women suffer less in parturition: it is not, as has been frequently supposed, because their frames are relaxed by the heat of the eastern climate, or their muscles strengthened by the cold of the north. However, as I before remarked, even these circumstances in their favour do not always render their labours safe. Sonnini, a late traveller into the East, admits that difficult labours are now and then met with, by stating the
charm

charm which is employed to render them easy. Hippocrates states frequent instances of difficulty; and the Bible itself announces several deaths, in consequence of unfavourable parturition.

There is one paragraph in Dr. Kinglake's letter that more especially offends against correctness and candour. He says, "It cannot be heard without shuddering, that *the practice is not rare*, in which, after a lapse of *less than twelve hours* in lingering and inefficient labour-pains, the prompt, the skilful, the instrumental accoucheur denounces the sufficiency of Nature; and, where the presentation is natural, where *no symptoms of imminent danger on the part of the mother have arisen*, he commences his scientific work by boring the foetal skull, and compressing it within practicable limits for extraction; and when the *ill-judged destructive interference* is over, full credit is asked and given for having saved the mother's life, &c. &c. Here, it is not hastily, not upon the spur of the moment, but calmly and deliberately asserted, that it is "not rare," of course that it is common, for "skilful accoucheurs," in labours "of less than twelve hours" duration, when there are "no symptoms of imminent danger," to perforate the foetal skull! Is Dr. Kinglake aware of what he has said? Is he aware that he has brought a charge of wilful murder, of murder most foul and most unnatural, against "skilful" medical practitioners? of murder, "not rarely" committed, but systematically adopted, and resorted to again and again, unnecessarily, to, as he adds, "an incalculably baneful extent"?

It is scarcely possible to write upon this disgusting topic with calmness; it requires more than ordinary patience to hear such a calumny advanced against "skilful" medical practitioners: the refutation of the slander is, however, easy; and I hasten to prove, beyond the possibility of dispute, that Dr. Kinglake has, in another instance, shewn himself unacquainted with the subject on which he publishes.

If it were true that the practice alluded to is "not rare," is common, among "skilful" accoucheurs, "to an incalculably baneful extent," how enormous must be the number of still-born children! how much must the column of abortive and still-born, in the Bills of Mortality, be increased beyond the numbers which were known when midwifery was chiefly practised by women!

Well, is this the case? The Bills of Mortality began to be kept accurately in the year 1657, at which time, and for many years after, the practice of midwifery was chiefly exercised by women, and by more skilful midwives than are now usually found, because they were not allowed to practise
without

without a licence, granted after an examination of their abilities, which now is never required. From 1657 to 1681 inclusive, a period of twenty-five years, there were 273,763 christenings and 14,397 abortive and still-born children, so that the children dead-born were to those born alive as 1 to 19. But, during the last twenty-five years, from 1791 to 1815, when the practice of midwifery has been more generally conducted by men, the number of christenings is 492,464 and the still-born children 15,984; which is, to those born alive, as 1 to 30. Notwithstanding, therefore, these atrocious murders, so boldly charged upon the men-midwives, and carried to "such an incalculably baneful extent," it appears, that so far from the practice of midwifery by men having augmented the number of still-born children, it has diminished them more than one-third.

From the same documents, the Bills of Mortality, may be drawn one of the most convincing proofs that can be required of the benefit which the general extension of the obstetric science among men of discrimination and skill has conferred upon the female sex; and this as regards their greater safety in this hour of danger. During the first series of twenty-five years above mentioned, there were, as has been stated, 273,763 christenings, and 14,397 still-born children, making together 288,160 cases of parturition: of these, there died in child-bed 6,686, which is in the proportion of *one in forty-three*. The 492,464 christenings in the second series of twenty-five years, and the 15,984 dead-born children, make a total of 508,448 labours; and, during this period, the number of deaths in child-bed amounts only to 4,684, which is in the proportion of *one in one hundred and eight*. To what cause this diminution of mortality in child-bed is to be attributed, except to the more careful and judicious management of women, in labour and after delivery, adopted by the accoucheurs, I am at a loss to conceive.

But Dr. Kinglake says, though cases may now and then occur requiring the assistance of the accoucheur, or rather of the surgeon, yet the great majority of labours would terminate successfully without his aid. He recommends, therefore, that ordinary cases of parturition should be confided to the midwife, and that the surgeon should be called in only when danger and difficulty present: thus, he thinks, "much less would be heard of preternatural labours, laborious and inefficient efforts for natural parturition, and of resorting to manual and instrumental aid."

I have already shewn, that, under the management of midwives, difficult and dangerous labours are by no means uncommon; and every writer on obstetrics, from the age of Hippocrates to the present, whether practising midwifery as

a profession, or only called occasionally to give advice in difficulties and serious accidents, concurs in the same opinion. I apprehend, therefore, that the necessity of the accoucheur is proved from this circumstance alone. But the necessity is likewise proved by the examples, which are numerous in medical records, of the total want of skill and judgment shewn by physicians and surgeons of great general knowledge and acuteness of mind, in cases of irregular and dangerous parturition. Of this a more glaring instance is not to be found than is exhibited in the person of Dr. Kinglake himself. Here is a regularly bred medical practitioner, a man who must have diligently studied anatomy, and all the different branches of the science of medicine, who has been conversant with surgical practice, who has merited and obtained the degree of Doctor of Physic, but is unacquainted with the practice of midwifery: let this gentleman be applied to, in the perilous accident of a placental presentation, he reasons thus—"the uterine contraction that would detach a placenta from the os uteri, would also advance the head of the foetus sufficiently close to the bleeding source to restrain, by the firm pressure it would occasion, the effusion of blood within safe limits;" and, thus reasoning, he trusts the case to Nature and the midwife: the consequence I will leave him to learn by a perusal of "Mr. Rigby's Essay on Uterine Hemorrhage,"* one of the *latest* publications on the subject; or old Guillemeau's chapter, "*Du Moyen de secourir la Femme en son travail, estant accompagné de Flux de Sang,*" one of the earliest.

Unless the practitioner be very conversant with the whole process of natural labour, and of labours unattended with danger, it is impossible that he can distinguish, in difficult cases, when and how to give the requisite artificial assistance: hence the necessity of having a class of men properly educated for the practice of midwifery, and in the constant exercise of that branch of the medical profession. To expect that physicians or surgeons, not habitually practising midwifery, should be able to determine in difficult emergencies, what mode of practice ought to be adopted; or, having determined that artificial aid was required, that they should know how, either by the hand or by instruments, to give the necessary assistance, is not less absurd than it would be to call into consultation, in an obscure and complicated malady, the physician who had not yet attended the more common diseases; or to require the surgeon, not habituated to perform minor operations, to undertake those that are technically termed Capital.

* I particularly recommend him to read with attention, Cases x, xiv, xv, xx, lxxxj, xcviij, and ci.

I might now expatiate upon some expressions in Dr. Kinglake's letter, which do not seem to be mere slips of the pen—but I hold my hand: he who can boast of using "harsh epithets," because he thinks "the cause in which they are used is that of philosophical truth, which disdains blandishments, and expresses itself in unequivocal firmness," would hardly be convinced by any arguments I could employ, that the cause of "philosophical truth" is more likely to be promoted by moderate language and gentlemanly expletives.

Half-Moon-street; March 14, 1816.

For the London Medical and Physical Journal.

DR. HALE'S Reply to Mr. Brodie's Remarks on his Inaugural Dissertation.

[From the New-England Journal of Medicine, &c.]

GENTLEMEN,

IN the New-England Journal for April last, are some remarks by Mr. Brodie upon my Inaugural Dissertation,* to which I beg leave to reply in your next number. I was absent on a journey immediately after receiving the number for April, until it was too late to write for your last.

Mr. Brodie objects to my experiments that they were not exact repetitions of his; and therefore not entitled to much consideration in estimating the causes of animal heat. It never could be doubted that experiments performed as his were, and by a gentleman of such distinguished character, were perfectly correct in all their details. Still it does not follow that similar results will be obtained from somewhat similar experiments, where some circumstances are different. Hence the propriety of such experiments being repeated by different persons. For, unless an exact imitation, in every particular, is studiously sought for, it can hardly be supposed that some circumstances will not differ, so as to lead to additional information. It may perhaps be an inaccuracy of language to call this a *repetition*, but, if it is, it is an inaccuracy that can never mislead, where the details of the experiments are particularly given.

Notwithstanding Mr. Brodie's remarks, therefore, I cannot but consider the circumstances in which my experiments differ from his, as the most important part of them. I will notice the several particulars mentioned by Mr. B. in the same order he has done.

1. Mr. Brodie used rabbits for his experiments, whereas I used dogs for some of mine, and cats for others. The

* Copied from the Lon. Med. and Phys. Journal, vol. xxxii, p. 295, former

former were, it seems, more readily obtained by him of the same age and size, and more easily managed; to me the latter offered the greatest facilities. Besides, he had already ascertained what would be the effect of artificial respiration in those animals. Had the result with different animals been the same as with those, it would have added strength to his conclusions against the chemical theory of animal heat. But that they were different, by no means disproves them. In my dissertation, I stated decidedly that I considered the state of the living principle to have a very powerful influence in producing heat, and gave some experiments performed with the express view of ascertaining, as far as possible, how far this influence extends. Artificial respiration evidently prolongs many of the vital, as well as the chemical actions. And it appears from Mr. Brodie's remarks, that the vitality is preserved much more completely in dogs and cats, than it is in rabbits. Here then is a very considerable reason for the difference of our results.

2. Mr. Brodie complains that I did not decapitate the animals in my experiments. But Mr. B. had already shown that the effect upon the respiration was the same, whether the spinal marrow merely was divided, or the head separated. So far as the chemical results were concerned, therefore, the former mode was equally certain, and more convenient. For, as the same degree of division was practised on both animals in each experiment, the comparison between them was more perfect than if the head was separated. The effects of vitality in producing heat, had not much excited my attention until a subsequent part of the investigation.

3. I was not particular in examining the respired air. Mr. Brodie observes, "Had he found, as I did, that the animals in which the artificial respiration was employed, consumed as much oxygen, and evolved as much carbonic acid, as under ordinary circumstances, he would have regarded his experiments as equally conclusive with mine against the chemical theory of animal heat." I confess I cannot perceive upon what this opinion is founded. So far was I from considering the different circumstances of natural and artificial breathing, as an argument in favour of any theory, that I actually took it for granted the chemical effects were the same. They had been proved to be so by Mr. Brodie; and I found in one or two instances, when I examined, that carbonic acid was expelled, and that *always* the changes in the blood, which are usually attributed to chemical actions, were completely and brilliantly accomplished. I do not perceive the necessity, therefore, of examining very particularly what is so well established.

Mr.

Mr. Brodie seems to consider my experiments as profess-
edly designed to support the chemical theory. In this he is
mistaken. At the time I commenced experimenting, I had
no decided opinion upon the subject: nor indeed when I
had finished was I at all satisfied. I was very far from ima-
gining that I had decided the question. That artificial res-
piration, under some circumstances, is the means of pro-
ducing animal heat, and that this heat is at least in some
degree owing to prolongation of the vital actions, is I think
pretty clearly shown by my experiments. Whether any of
this is entitled to the appellation of positive knowledge, I
leave to others to decide.

I am, Gentlemen, your obedient Servant,
Gardiner, Maine, Sept. 15, 1813. E. HALE, JUN.

For the London Medical and Physical Journal.

On the Revival of the Taliacotian Art; by J.V. of Cornwall.

THE object of the following letter is to offer a few remarks
on an operation which has lately been performed in
England under the title of the Nasal Operation, with the
design of restoring the deformity of a lost Nose. Mr. Carpue,
Professor of Anatomy and Surgery in London, has performed
it twice, and in both instances with success. His method
differs from that practised by the celebrated Taliacotius,*
in the flesh being taken from the forehead instead of the
arm. This operation has been performed in India for many
years by one of the casts of the natives. If men like these
are capable of an operation requiring great accuracy, how
much more are the practical surgeons of England adequate
to it, who are, in general, men of science, erudition, and
professional skill.

The reason for which this operation has been neglected
may be partly owing to most of the cases which occur in
England being the consequence of disease: now, in India it
is diametrically opposite, for it is well known that many
crimes in that country are punished by cutting off the nose,

* This antient surgeon appears to have the merit of introducing
some of the first improvements in that part of surgery which relates
to adhesion; but, through the extravagance of some of his follow-
ers, and the irresistible operation of the wit and humour of his
satirists, his name has become irrevocably connected with ideas of
ridicule.—*Med. and Phys. Journ.* vol. ix.

He wrote two works, entitled—
Taliacotii (Casp.) de Curtorum Chirurgia, Fol. Venet, 1597.
*Chirurgia nova Curtorum sive de Narium, Au-
rium, Labiorumque Defecta, &c. 8vo, Francof. 1598.*

ears, &c. This circumstance may make a material difference in the success attending the operation, for a diseased part is not so likely to heal by the first intention as a healthy one.

Butler, in his *Hudibras*, places this operation in a ludicrous light.

Sic adscititios nasos de clune torosi
Sectoris, doctâ secuit Taliacotius arte:
Qui potuère parem durando æquare parentem.
At postquam fato Clunis computruit, ipsum
Una sympathicum cœpit tabescere Rostrum.*

In Heister's *Surgery*, a chapter is written on the subject of artificial noses, in which he says, that what is proposed by Taliacotius, in his work entitled *Chirurgia Curtorum per Insitionem*, is, for want of later experiments and observations, judged to be impracticable, and without foundation, by our modern surgeons. He then observes, when this member is lost, we must supply the defect by an artificial nose of silver or wood, unless, by being on the spot, you can instantly replace and conjoin the real nose just separated, either by suture or emplasters. Such an artificial nose, painted to the life, and adapted by proper springs and screws, may render the accident and deformity imperceptible.

In offering these slight hints, I am not intending to inculcate that the nasal operation is of as much consequence as that for the relief of a strangulated hernia, or those for the depression or extraction of the cataract—by no means; but that, like them, it requires some share of manual dexterity, so that the surgeon who should attempt this operation ought to possess all the qualifications required by Celsus, “*manu strenua stabili, nec unquam intremiscente, animo intrepidus immisericors.*”

In writing the above, I fear I have trespassed too much on your valuable pages, and shall now conclude with the *utinam*—

Quod floreat ars chirurgica
Floreantque ejusdem peritissimi professores.

* The Editors will thank their learned correspondent to inform them where the above Latin translation is to be met with. The following are the lines in Butler's *Hudibras*:—

Thus learned Taliacotius from
The brawny part of porter's bum,
Cut supplemental noses, which
Lasted as long as parent breech;
But, when the date of Nock was out,
Off dropt the sympathetic snout.

We shall shortly notice Mr. Carque's account of his success in this operation.

COLLECTANEA MEDICA,

CONSISTING OF

ANECDOTES, FACTS, EXTRACTS, ILLUSTRATIONS,
 QUERIES, SUGGESTIONS, &c.

Quicquid agunt medici,
 Nostri farrago libelli.

[The following paper is so important as to speak for itself throughout: we have, therefore, preferred giving the whole of it in this place, to reserving it for our Critical Analysis.]

Some Cases, illustrative of the Pathology of the Brain. By
 RICHARD POWELL, M.D. Fellow of the Royal College of
 Physicians. (*From the last vol. of Medical Transactions.*)

THE pathology of the brain and nervous system appears even at present to be more defective than other branches of medical science; and most practitioners must have felt cause to lament their previous uncertainty, with respect to the altered condition of these parts, when the real nature of the diseases has been ascertained by anatomical investigation. If we further compare the actual symptoms of various affections of the brain, with those by which they are characterized in systems of nosology, we may, perhaps, be led to wish that the whole subject should be new-modelled. Inflammation of its membranes, for examples, is by no means unfrequent, whilst we rarely find it accompanied by the symptoms, which should designate phrenitis; for, as far as my opportunities of observation have gone, they have been referable rather to oppression of nervous power, than to increased activity of the circulating system. On the other hand, patients have often been destroyed under symptoms of disease of the brain, and yet that altered structure of the parts, which may have been strongly inferred from the symptoms, has not been found to exist.

It is by the accumulation of facts, and by the connection of symptoms with organic alteration of structure, that we can best attempt to promote our knowledge of this class of diseases, notwithstanding there may be, and probably will for ever remain, a vast number of important cases, for the explanation of which morbid anatomy will be found wholly insufficient. In a former Paper, I endeavoured to point out this insufficiency, in one variety of paralytic affection: in the present, I intend to record some cases which have fallen under my own observation, and which were unfortunate in their termination, for the purpose of connecting the morbid appearances, or the absence of them, with the symptoms which existed during the life of the patient. Although neither the dissections nor their histories may be new, nevertheless I should hope that the combination of them may offer some points deserving the attention of the College. Still I am fully aware of their

their deficiencies, both as to the histories of symptoms, and the anatomical detail of appearances. With respect to the former of these, I believe that most practitioners, who note down the circumstances of disease, must, like me, when they have afterwards attempted to revise and to collate their observations, have found in how many points their notes were imperfect, and have regretted the many illustrative particulars which have been overlooked at the moment, and cannot afterwards be recovered. As to the latter, a confident hope may be expressed that the cases of diseased brain, which shall hereafter be recorded, will be more minute in their detail, and more precise in their descriptions of local situation; and that the dissections recently introduced into this country, by Dr. Spurzheim, of Vienna, will not only improve our anatomical knowledge, but ultimately lead also to great improvements in the pathology of this most important organ.

CASE I.—A young lady, aged 17, had, on February 28, attended the service of the church, and afterwards walked in Hyde Park, in the apparent enjoyment of her usual health and spirits. In the evening, she felt herself unwell, and complained of general soreness, as from severe cold. Through the following day, March 1, she was observed to be very heavy, and much disposed to sleep; and, when I first saw her, about the middle of the 3d, she had lain from the preceding morning in a state of perfect stupor and insensibility, interrupted only by occasional attacks of strong and general muscular convulsions. Such a fit took place during my visit. She could not be roused to sensibility, and the convulsive motions appeared to be equally strong on each side of the body; the pupils were much dilated, and only very slightly influenced by any application of strong light, which she seemed, nevertheless, to avoid, closing her eye-lids by a sort of voluntary effort, as if it were offensive; and when a liquid was held in her mouth for some time, it produced an effort by which a small portion of it passed into the stomach. The general character of her countenance was stern and contracted. Leeches and blisters had been applied, and motions had been obtained, but she passed them without consciousness. She was stated not to have been regular in menstruation for some time before, and to have recently used various lotions for the purpose of repelling a slight eruption upon her hands. I directed the application of a cold wash, with vinegar, to her head, and of sinapisms to the feet; and that, if possible, a solution of sulphate of zinc should be given, so as to produce vomiting. She seemed to feel nausea, and to heave a little from what was swallowed, but vomiting did not take place. It was thought, in the evening, that she had given signs of increased irritability and consciousness, particularly by the manner in which she rejected what was put into her mouth, which seemed to depend upon voluntary effort; and her convulsions had also been less frequent. Towards morning, however, the convulsive attacks became more violent, and almost constant, and she appeared to suffer considerable pain; it was thought that the signs of this were more
evident

evident when the abdomen was pressed upon, yet her bowels had been fully evacuated on the preceding day. The pupils were largely dilated and wholly insensible, the skin was losing its temperature, the pulse became small and countless, and she died in the afternoon. The brain was, on the following day, most minutely and accurately examined by Mr. Young, and no appearance of disease whatever, no alteration of structure was discoverable, nor was there any thing wrong in the abdominal viscera.

CASE II.—The servant of a gentleman, in my neighbourhood, had attended his master, on horseback, and returned home to dine as usual. It was afterwards recollected, that he had complained of some slight head-ach before breakfast, but not at any subsequent period of the day. He conversed throughout the evening, with an old female servant, in his ordinary manner; and whilst he was occupied in writing out some accounts, he dropped suddenly from his chair, and expired without a single groan, or apparent struggle of any kind.

I was not present when the head was examined on the following morning, but I understood that a considerable quantity of blood was found to have been effused into the ventricles of the brain.

CASE III.—A gentleman brought his son, aged 8, from a school in the neighbourhood of London, on account of an attack of head-ach, which he had suffered in the preceding evening, and a sort of convulsive fit, which he was stated to have had in the course of the night. It appeared tolerably certain that he had received no injury, and his illness was not thought to be of any great importance. On his road home, he was attacked in the carriage by convulsions, which were followed by stupor. He arrived about three, p. m. and I saw him at four. The livid look about his countenance, the foaming mouth, the general insensibility and occasional violent convulsions, and the oppressed irregularity of the pulse, indicated the existence of such a degree of pressure upon the brain as seemed very unlikely to yield to any mode of treatment. The temporal artery was opened with little effect, and motions were obtained, but he died about eight o'clock.

The surgeon who examined the head stated that the brain itself appeared unusually large, and the vessels of the dura and pia mater were enormously loaded with blood; an accumulation of aqueous fluid had also taken place between the membranes; about two fluid ounces of water, slightly tinged with blood, were found within the two lateral ventricles, and the vessels of the plexus choroides seemed to have given way and produced this tint; the thoracic and abdominal viscera were all perfectly healthy, and the intestines contained very little feculent matter.

CASE IV.—A gentleman became suddenly insane, after an attack of severe diarrhœa of some standing. His imagination was more than commonly active, and his ideas were exceedingly elevated; but though his premises were false, his conduct and inferences founded upon them were sufficiently correct. He was very impatient of restraint, and often started out into fits of greater violence.

violence. I lost sight of him for about two years, which he had passed in confinement, and under the treatment of physicians of the highest and best practical experience. When I next saw him, he had sunk into a state of fatuity, and passed both his urine and stools involuntarily. He had no partial loss of power, and no other sign of paralytic affection; but, at uncertain intervals, he was seized by convulsive fits, under which the left half of the body suffered more considerably than the right, and at last, under a very severe attack of the same sort, he died.

When the head was examined, an adventitious membrane was found under the dura mater, which extended over the right hemisphere of the brain, and upon the falx of the same side, and reached the base of the skull. It was somewhat adherent to the dura mater, but very easily separated from it, and from the arachnoid coat beneath. It was highly vascular, of firm texture, and of about the thickness of three sheets of writing paper, but, in proportion as it reached the basis of the brain, it became thinner, and was lost. The arachnoid coat itself, of the same side, was more vascular and thicker than natural, and under it a quantity of gelatinous fluid was collected. The membranes which covered the opposite hemisphere were more vascular than natural, but there was no similar appearance, on that side, of an adventitious membrane. The ventricles contain about two fluid ounces of aqueous fluid.

CASE V.—A young gentleman, aged 16, applied to me, on the 9th of November, on account of an eruption, with an acrid discharge, behind the right ear. I understood that he had become deaf five years before, after scarlatina, but that no discharge had, at that time, taken place from the ear; and that, in the following year, after measles, an abscess had formed in the right ear, with considerable pain, and had burst. When I next saw him, on the 17th of November, I learned that he had suffered a sudden attack of very severe pain, in the same ear, on the 14th, which had wholly disturbed his rest; and, as he stated, resembled very closely that which he had before undergone when the abscess formed in it. There was an appearance of pus in the bottom of the ear, some of which, when wiped away, was yellowish, uniform, and not offensive to the smell. The pulse was 60, firm and equable; the tongue was white and coated; but the bowels were regular in their action, and the stools natural. On account of the intensity of the pain, twenty-five drops of the tincture of opium were given at night, by which he was entirely relieved as long as its influence lasted, but as this wore away, the pain again increased with great violence, and the night of the 19th was a very restless and disturbed one. The external inflammation and discharge had diminished, but not wholly subsided; and within the ear there appeared to be a projecting tumour, confining some pus beyond it; but still there was a considerable portion of pus collected upon a poultice, which had been applied over the ear, and this was also more offensive than it had before been. Eight drops of the tincture of opium were given every

every six hours, for the purpose of keeping up a uniform effect; and he expressed much satisfaction at the relief he received from it, stating, that though the pain was still severe, it was rendered bearable by the medicine. He distinctly described it as existing within the ear without spreading to the adjacent parts. The pupils of the eyes were equally and fully sensible to light, which was not in the least offensive, and his mind and senses were natural and perfect. His tongue had cleaned; his pulse continued at 60, firm, and regular; and I also noticed a marked pulsation in his neck, a symptom to which I am especially attentive, on account of its uniform and almost characteristic connection with some diseases of the heart. On the 22d the opiate was omitted; but on the 23d it was necessarily repeated, on account of the violence of the pain, which was again considerably checked by its use, though his sufferings continued to be very great. There was nothing like delirium or coma: he dozed, indeed, a great deal, but he was easily roused, and answered questions distinctly and correctly, and appeared to possess his perfect senses in every respect. He turned voluntarily from his right to his left side in bed, for the purpose of directing the light into his ear, that I might examine it. When I did so, I saw some thick pus, but not much in quantity, lodged in the bottom of the ear, and both this portion, and that which had collected on the poultice, had a earthy and offensive smell, which led to a suspicion that the bone might be affected. The skin was warm, moist, and natural; the pulse 72, and firm; and the excretions sufficient and healthy. In the course of the same night, the pain increased to a most violent degree, his powers sank rapidly, and he died about six in the morning.

When the head was examined, the structure of the dura mater was healthy and natural; but, beneath this membrane, the whole superior surface of the right hemisphere was covered with a layer of coagulable lymph and pus, a considerable quantity of which was also collected between the posterior lobe of the cerebrum and the tentorium. The whole quantity, collected, as well as it could be, by a sponge, exceeded three fluid ounces. The vessels of the substance of the brain were not more numerous or loaded than usual, and the brain itself was healthy in every part. In the base of the skull, the dura mater adhered to the bone, except in one part, of about half an inch diameter, just over the petrous portion of the temporal bone, where it was black and sloughy; the subjacent portion of the bone itself was carious, black, and crumbling, and contained fetid pus. The auditory nerve looked healthy.

CASE VI.—J. M., aged 70, was admitted under my care into St. Bartholomew's Hospital, September 1, 1814, labouring under a constant general convulsive affection of the left side, which had attacked him suddenly about a fortnight before, and continued until the time of his admission. At first, however, it was much slighter in its degree, but it had grown gradually more violent, and then seemed to constitute a very severe case of hemiplegic chorea. The right side of the body also, though not convulsed, was much

weaker than it ought; and he stated that it had constantly been so for thirty-four years, in consequence of a typhus fever. His general health was in other respects good, and his intellectual powers were free and perfect. After the exhibition of a purgative medicine, the nitrate of silver was directed in doses of one grain, and in the form of a pill, every four hours, and at the end of a week was increased to two grains. Within the following week he had acquired a greater command over the affected side, and expressed himself as mending very fast. He slept sufficiently; and during sleep was wholly free from the convulsive motions; his bowels were regular in their action, and his motions were figured and natural. The dose of the medicine was then further increased to three grains every four hours, and, as on the following day he complained of flatulence, which he ascribed to its effects, the infusion of quassia and tincture of ginger were given at the same time. He seemed to be considerably improved on the 21st, but on the 22d, without the operation of any ostensible cause, he was suddenly seized with hemiplegia of the left side, with loss of power of speech, and stertorous breathing; and his pulse became preternaturally slow, full, and hard. After this attack, the right hand and arm became constantly and tremulously convulsed, but much more weakly so than the left had been. Large and repeated loss of blood, from the arm, produced much temporary benefit; and after it, on the 24th, he articulated distinctly, and was able to answer questions with a clear comprehension of their import, and his pulse became soft and natural, and rose to 84. After this time, he became gradually more and more comatose; he did not express his sensations of wanting food, but took any nourishment which was offered him freely, and even ravenously. From October the 1st, he passed his stools and urine voluntarily, his senses and general powers failed him, and after having lain for some days in a state of complete insensibility, he died on the 18th.

Mr. Stanley examined the head on the following morning. There was general opacity of the tunica arachnoidea and pia mater, and a very considerable effusion of aqueous fluid into the cellular texture of the latter. The ventricles were distended also by a transparent aqueous fluid, amounting, in quantity, at least to three fluid ounces; and there was a similar collection between the membranes at the base of the brain, so that the aggregate amounted to about half a pint. In the fore part of the anterior lobe of each hemisphere, a destruction of the substance of the brain had taken place, apparently from ulceration, for the surface of the diseased part presented an irregular excavated appearance, with a thin layer of curdled matter deposited on it. This diseased appearance occupied a space in the right hemisphere of about two inches in breadth, and as much in length; but in the left hemisphere it was less extensive.

CASE VII.—A. P., aged 23, was under my care, in St. Bartholomew's Hospital, for twenty-seven days before her dissolution, which took place January 31, 1810. It appeared that her illness had commenced about three months before, at the time of menstruation,

situation, in consequence of a violent cold; and that the discharge had not again taken place. Since that period she had suffered frequent hysterical fits, with much flatulence and rising in the throat; but at the time of her admission, her complaint was wholly referred to the head, where she complained of excessive pain. It seemed, however, to vary considerably in its violence; at some times it was insupportable, and at others was described rather to be a dull and heavy weight, than actual pain. Her sight was imperfect and misty. Her eyes were full and starting, and their pupils dilated and indolent; but they contracted when a strong light was applied. The repeated application of leeches, with blisters, and the frequent use of purgative medicines, produced a temporary alleviation of her sufferings. In the night of the 12th of January, she was attacked, without any previous notice, with a sort of fit, under which she was described to have been totally insensible for about an hour, whilst her head and neck were drawn backwards, and rendered stiff and immoveable. Her speech was wholly lost on the following morning, but, in the course of the two following days, she gradually acquired the power of expressing herself, and still complained of violent pain in the head. Her sight became less and less perfect; the pupils, which at first had been dilated and indolent, ceased to be at all affected by light; their loss of susceptibility, however, was not uniform, for they seemed to vary in this respect from day to day; but, after the 20th, all power of vision was entirely gone. She passed her nights throughout with a diminution rather than increase of inconvenience, and slept moderately well. The powers of her mind were not at any time disturbed or impaired by her disease. The pulse was always weak, small, and slow, and was sometimes as low in number as 54. The tongue was usually furred and dry, and she had some attacks of nausea and vomiting, but they were only slight: she always felt disposed to take her food; and her bowels, though costive if unattended to, were nevertheless easily regulated by mild opening medicines. On the 19th she had another attack of fit, which began with a cold shivering, after which she sank into a state of complete insensibility, and suffered no convulsive motion of the limbs during it. From this attack she never recovered her powers to any degree, and after the 22d she fell into a state of permanent stupor, from which, for the two next days, she could be roused so as to answer questions without any difficulty, and at such times she always complained of the violence of the pain in her head. Her strength gradually diminished until her death on the 31st.

On examining the head, all the membranes appeared to be much more loaded with blood than natural. The convolutions of the brain were rather flattened, and in three places, upon the surface of the right hemisphere, there were hardened spots of about an inch diameter. These constituted a part of the same number of considerable tubercles which extended into the medullary substance of the brain. One other tubercle was also more deeply and wholly embedded in the medullary substance of the cerebrum. There was

one similar spot upon the left hemisphere, but it was not so large, nor did it extend so deeply. On pressing down the brain with an equal force, it was evident that the right hemisphere was larger than the left, and must have encroached upon it considerably, and moved it from its usual station. The ventricles contained more aqueous fluid than natural. The cerebellum and tuberculum annulare exhibited only those appearances which belong to their usual structure.

CASE VIII.—For the detail of the following case I am obliged to Dr. Warren, from whose notes it is furnished: I attended the subject of it occasionally, in consultation with him, during the last three weeks of his life.

Mr. L. was by birth a Peruvian, and had served several years in the Spanish army in Europe. During the latter part of his time he had been actively employed, and suffered great anxiety of mind from various causes. About two years before his death, he was attacked by very severe pains in his head, for which no permanent relief was obtained; but by degrees they subsided, leaving behind them a constant sensation of tightness across the middle of the forehead, and a feeling of want of room within the skull. Nearly six or eight months after the first attack, while sitting in one of the theatres at Paris, he was sensible of a sudden diminution of the sight of the right eye; and this defect increased until the power of vision on that side was completely lost. The sight of the left eye then became impaired in the same manner; and, as the affection of this eye advanced, the other recovered a small power of vision, but in the progress of the disorder he became completely blind. In this state, among other remedies, emetics were used, and the effect of them was remarkable. In the act of vomiting, the power of vision was suddenly restored to the right eye, with a sensation as if a flash of lightning had taken place; but it remained only for the short space of an hour, the clear vision gradually subsiding to a glimmering of light, and at last becoming extinguished. In this state of blindness he remained more than twelve months, when he applied to Dr. Warren for the relief of some stomach complaints. The pupils were at this time dilated to their utmost extent, and the eyes were totally insensible to light. He had been for some time under the care of an eminent oculist, on account of the amaurosis. The complaints, for which he required medical assistance, were weakness of digestion, uneasiness in the epigastric region, want of appetite, and frequent disposition to vomit. The bowels were inactive, but not very costive; urine was passed in considerable quantities; the pulse was free and natural; the tongue of a pale colour. At this time he did not complain of pain in his head, but of the tightness of the forehead and upper part of the skull, before related. He was sluggish and indolent; but his intellects were clear, his mind vigorous, and actively engaged in the politics of his native country. A partial relief of his stomach complaints was obtained by medicine, but the disposition to vomit continued, and by degrees he became weaker and very costive.

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His sight having been temporarily recovered in Paris by the use of emetics, it was advised that they should be tried again. After the use of the second emetic, the pupils of the eyes recovered the power of dilating and contracting on exposure to light, and preserved it till death; but the power of vision was not restored. Two days afterwards he was threatened with a fit of apoplexy, from which state he was relieved by cupping, and the application of a blister. His strength declined rapidly after this attack; he became very sleepy; he next lost the power of distinct articulation, but preserved the faculties of his mind; these he retained till within a few hours of his death, with sufficient distinctness to give his assent or dissent to any proposition that was made to him; but he did not appear capable of following any continued train of thought. During the whole period of his illness, the sense of hearing had been very acute, and to the last day of his life enabled him to recognise, with great exactness, the voices of persons with whom he was acquainted. After death, the head was examined by Mr. Brodie. The tunica arachnoides was considerable thickened where it covers the upper part of the cerebrum. The ventricles of the brain contained about four times the usual quantity of water, with a small quantity of matter floating in it. The pituitary gland, which is situated below the optic nerve, was converted into a pulpy structure, about five or six times the usual bulk of the gland; and the sella turcica, which contains it, had become enlarged in the same proportion. To the upper part of the gland was connected a tumour of an oval form, and of the size of a hen's egg, containing a thick purulent fluid; it was situated under the middle lobe of the cerebrum, and interposed between the optic nerves, which were, in consequence, much separated from each other. The tumour occupied the place of the infundibulum, extending into the third ventricle; and there was every reason to believe, that the pus in the ventricles had passed through a minute aperture in that portion of the tumour which was contiguous to them, although, from the circumstances of the dissection, the opening could not be distinctly demonstrated. The fibres of the optic nerve were seen expanded, and almost destroyed, on the side of the tumour. The vessels of the brain generally were more turgid than usual. The plexus choroides contained some small concretions of earthy matter, and was somewhat thickened.

CASE IX.—I saw, in consultation, on August 10, 1814, a gentleman, aged 29, who first complained of head-ach, after very slight exercise in an exceedingly hot day, July 28, but whose symptoms had excited no alarm even in the mind of an able and anxious medical friend, until the 14th of August, when the pain increased, and he began to wander in his mind, with much unusual heaviness and stupor, in which state he had since continued. He was unable to answer, and did not seem to comprehend any questions which were put to him. He tossed his head about occasionally, as if from pain, but he expressed none. The pupils were much dilated, and were not affected by a strong light. His articulation was very im-
perfect

perfect and indistinct, and not regulated by any consciousness of what he uttered; but in this respect his powers were said to vary, and sometimes he was more active, and easily roused. He had previously laboured under an affection of a testicle, which had suppurated and returned to its natural bulk, and certainly did not depend upon any venereal cause. It was recollected by his friends, that he had occasionally laboured under attacks of head-ach, and that such a one came on about three months before, with a considerable throbbing sensation. The pulse was 100, and oppressed. He had been blistered and purged; but leeches had not been applied from the experience of their tendency to produce erysipelas.*

Sixteen fluid ounces of blood were taken from the temporal artery, and ten grains of submuriate of mercury were ordered to be given every second hour, until stools were obtained. In the course of the night he passed, involuntarily, abundant faecal black stools; and seemed afterwards to be more roused, and more readily alive to external objects. The sufficiency of his muscular powers were also evinced by the way in which he turned in his bed; and his pulse was 120, more free and soft. His head was next blistered; and his speech and his mind became clearer and more collected, for he comprehended questions which were put to him, and answered them shortly but rationally. His sight also was perfect, for he knew and named some of his friends around him. He put forth his tongue, which was white, and thickly coated; and I was able to examine his mouth, which was covered with thick aphthæ. Hiccough became a most troublesome symptom, and followed every thing he took into his stomach, either as medicine or nourishment, and it was with difficulty kept under by small quantities of tinctura opii. From the 25th he began to sink rapidly, though he continued sensible. His right eye-lid dropped so as half to close the eye, the pupil of which was more dilated than that of the left, and was insensible to light, whilst the latter contracted. He did not speak, or seem to possess any consciousness, on the next day; and, on the 27th, his right side had become paralytic, and he died.

The head was examined on the following day. The blood-vessels of the brain were very turgid, and the ventricles considerably enlarged and distended, by at least four fluid ounces of aqueous fluid. The convolutions of the brain were flattened, and its substance throughout was remarkably soft. There was a layer of yellow substance covering the pons varolii, and enveloping the

* I have not sufficient experience to affirm the fact, but I have reason to believe that the variety of leech with an olive-coloured uniform inferior surface, which is brought from Portugal, and has of late been much employed in this country, is by its bite more frequently productive of erysipelas than the usual one, whose inferior surface is variegated with black and yellow, and which used to be considered as the regular *Hirudo medicinalis*.

origin of the optic and other nerves: it resembled the coagulable part of the blood, and seemed to be formed by an effusion of it into the cellular texture of the pia mater. At the anterior part of the middle lobe of the brain, the pia mater was much thickened, and contained a quantity of small white tubercles, not much exceeding a large pin's head in bulk; and a similar kind of tubercles was also found, but in smaller numbers, over nearly the whole of the same membrane, particularly in its processes, which dip between the convolutions of the brain. These tubercles projected also from the inner side of the membrane, the outside of which was smooth and uniform.

CASE X.—I saw a gentleman, in consultation, on October 17, who had then suffered from violent pain in the head for about a fortnight, during which time bleeding and purging had been actively employed, and with considerable temporary relief. A recurrence of the affection, however, had taken place with equal violence, and the same means seemed, on repetition, to have almost lost their effect. This pain exacerbated by paroxysms, but not at any regular periods: when under their influence he felt exceedingly depressed, but on their abatement resumed his usual spirits. The pupils were sensible to light, and vision was perfect, but under the increased severity of the pain became double; and it varied a good deal in these respects, at different times, during the progress of the disease. He described himself also at one time to have felt a considerable degree of muscular twitching, and numbness on the left side of the body. The pulse was 54. The tongue was dry and coated; and the bowels were torpid in their action. Twenty fluid ounces of blood were immediately taken from the temporal artery, which much relieved him for a few hours; but the pain recurred, and at the same time the cut artery happened to burst open: advantage was therefore taken of the circumstance to allow the discharge of ten fluid ounces more. He passed the succeeding night without pain, and slept well, and seemed much refreshed in the morning. The pulse was then 96. The tongue was cleaner and more moist; abundant stools had been obtained, and he felt a disposition to take food. Under the apprehension, however, of disease within the head, a perpetual blister was directed to be established upon it, and one grain of the submuriate of mercury to be taken thrice daily. He went on well until the 22d, when the pain again attacked him, and was again overcome by the loss of eighteen fluid ounces of blood from the temporal artery. The exacerbation was, in this instance, distinct and sudden, and it afterwards assumed the same character of remission and accession in a more marked manner. The pulse again sank to 54, and the bowels became more torpid and difficultly acted upon. In addition to the submuriate, we judged it proper to secure the full effect of mercury by rubbing in a drachm of the ointment every six hours, until an affection of the mouth should be produced, and this did take place on the 27th. A pill, containing four grains of aloë was also given

every six hours, by which a full and free action of the bowels was established. In the night of the 23d, he had another severe attack, which lasted four hours before it began to abate; and it was not entirely gone at the end of five more, when it again exacerbated in a very considerable but not quite so violent a degree; and he then referred the pain more definitely to the back part of the head than he had done before, for he had described it as general, and rather worse across the forehead. For some days following, the attacks were less violent, but his vision remained permanently double. The pulse continued also pretty regularly at 78.

I was again desired to see him on November 16th, and I found that he had continued free from any attack from October 26, to the preceding evening, during the greater part of which time he had been under the influence of mercury. On the 14th, he had attempted to walk out, and felt himself worse after the exertion, to which indeed he ascribed the present recurrence. The paroxysm appeared to have been extremely severe, but circumscribed in its extent, and confined to the forehead; during it there also seemed to have been violent spasmodic exertion of the muscles connected with the head. He did not, however, describe it as involuntary, but as a sort of effort from which he sought relief. His sight was distinct, his mind and senses were perfect, and his bowels acted regularly; but he appeared to be much weakened, and to have become much more irritable. Ten grains of camphor were ordered every six hours, and he thought that he slept better on the following night, and that the attacks were mitigated in their severity by its use: this, however, did not continue, and, on the 19th, the complaint seemed to have assumed so much of the character of distinct paroxysms, and the intervals to have a greater, or rather it might be said, a perfect freedom from complaint; that, although there were several of these during the space of twenty-four hours, I judged it proper to try the effect of cinchona in substance, and given freely. During these intervals the pulse was 72, and the bowels were regular; under this plan the attacks were thought to be less severe, but they were not less frequent, and they seemed also not to consist of pain alone, as at first, or to excite voluntary muscular effort, as they were before described to do, but to attack suddenly, and to be accompanied by muscular convulsions, chiefly of the right side; through these attacks, however, he also retained his senses. Other modes of treatment, which were afterwards adopted, and among these a seton in the neck, exerted very little influence over the complaint in its subsequent progress. The paroxysms themselves varied a good deal: they were uncertain in their recurrence and degree, and at some times were marked by pain alone, at others by convulsions of the right side; but, upon the whole, they were considered as having abated much of their severity. He lay in his bed on either side indiscriminately, and was usually easiest when his head was kept drawn backwards. On the 26th he was able to sit up for two hours, and he did the same on
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the 30th, when he also expressed himself to be much more comfortable in his own feelings; but in the same night, after a comparatively slight convulsion, he died.

The head was examined, and the following appearances were found:

A tumour occupied a considerable portion of the anterior part of the right hemisphere of the brain. When the dura mater was removed, this tumour rose considerably higher than the surrounding parts, and it also pressed on the right ventricle. The blood-vessels of that part of the pia mater which lay over the surface of the tumour were almost obliterated. The medullary substance of the brain around the tumour was very soft; but the tumour itself, and more especially a central part, of about the size of a hazel nut, was of very firm texture. In the left ventricle there was about a table-spoonful of water; the other parts of the brain were in their natural state.

CASE XI.—T. H., aged 30, on his admission into St. Bartholomew's Hospital, October 13, 1814, complained of an excruciating pain in his head, which he had suffered at intervals for six weeks; but within the last few days it had become almost constant. He stated, that the affection had first attacked him after working hard in a hay-field, which produced violent perspiration; that after this he had severe pain in his limbs; and, still further, that it had been much increased by bathing in the sea when he was heated. The violence of the pain compelled him to the utterance of a most distressing moaning sound, and, when sitting upright, he was scarcely able to hold up his head without support. It was situated across the forehead, and stretched round over the ear of the left more than that of the right side; but it seemed to have varied its situation, and at times to have occupied the right side also, and gone down the neck. It commonly increased in the night, and deprived him almost entirely of sleep; and frequently, but not constantly, it became throbbing with great violence. His sight was much affected, and he could not see so as to read ordinary print: the power of the left eye was much less than that of the right; its pupil was also more dilated, and it appeared half closed. The face seemed to be rather drawn to the left side, but there was no other appearance of paralysis, none of convulsive affection of any sort. The bowels were somewhat costive; the pulse was 86, weak and oppressed. Cupping and blistering had been previously employed without any relief. I directed the immediate administration of a purgative medicine, that the temporal artery should be opened, and that the quantity of blood drawn should be regulated according to his feelings and strength. He seemed to be relieved considerably by the bleeding; and it happened that the artery opened again four times in the two following days, with the loss altogether of a very large quantity; at last, however, it was secured by ligature. The pain afterwards seemed to exacerbate, chiefly at night, through which he became exceedingly restless, and was described as being delirious from its violence; but it abated

during the day, and his mind was at all times perfect when I saw him in the morning, though latterly he seemed unwilling to make the exertion of talking. The pupils became gradually less susceptible of the action of light, and more dilated, and the sight became more and more dim, until it was wholly lost. The bowels at all times acted readily, and latterly he passed his urine and fæces involuntarily. The pulse never rose above 96; usually it was nearer to its other extreme, which was 64. On November 3, he suffered a sudden attack of strong apoplectic symptoms, with a purple loaded countenance and stertorous breathing. On this account blood was drawn from the arm, which was firm, buffy, and cupped; it produced only a slight relief from the load, and he died November 5.

When the head was examined on the next day, the following appearances were exhibited. The membranes covering the brain were in a healthy state. The veins leading to the longitudinal sinus were more distended with blood than ordinary. The convolutions forming the superior and lateral parts of the hemispheres, with the intervening sulci, were but indistinctly manifest, their surface being smooth, and having a flattened appearance. From the inferior part of the anterior lobe of the left hemisphere, a mass of firm substance projected: it was of about the bulk of a large walnut, and, when cut into, resembled in appearance a large absorbent gland; it was embedded in diseased and softened medullary substance of the brain. The external surface of this hemisphere had given to the touch the sensation of a flaccid bag containing fluid; and the greatest part of its medullary matter was reduced to the state of a pulpy fluid, and was of a very light brown colour. In the part which more immediately surrounded the altered substance, the surface appeared rough, as if in a state of ulceration. The diseased appearance was confined to the medullary substance, and did not extend to the cortical. A small quantity of aqueous fluid was contained in the lateral ventricles.

CASE XII.—D. M. G., a sailor, aged 48, was admitted into St. Bartholomew's Hospital, Feb. 16, on account of hæmoptysis, which had existed for more than three weeks, with slight pain in the side. The blood had been coughed up three or four times daily, and was often not less in quantity than half a pint. It varied in its appearance; sometimes it was florid and frothy, at others dark and clotted, and at others again mixed with yellowish matter resembling pus. His pulse was 112, and feeble, and he appeared pale and emaciated. His bowels acted regularly, and their discharges were natural. His tongue was slightly whitish and dry. I directed the infusion of roses in mint-water, with ten grains of alum, and one fluid drachm of compound tincture of camphor, to be taken every six hours; and that he should be kept quiet, and live upon a milk diet. The blood still flowed, but in less quantities, it was florid and frothy; the cough and pain continued, and he seemed to be purged by the medicine. He then took one grain of superacetate of lead, one grain of fox-glove, and half a grain

grain of opium, in a pill, every four hours, with a mucilaginous mixture; and for a fortnight afterwards he passed no fresh blood, and his bowels became regular: the cough, however, and pain in the side were increased rather than diminished, and the latter was easier when he lay upon it. He did not gain flesh or strength, and his pulse was never below 108. On Feb. 27 he had a violent attack of cough, when he brought up a large quantity of blood mixed with pus; he still complained of pain, his nights were described as restless, and his head as wandering, though there was no appearance of delirium in the mornings. He took the infusion of roses in mint water, and forty minims of tincture of opium at night. After this, for the last three weeks of his life, he coughed and expectorated much less, and never brought up any quantity of blood; but his restlessness and disturbance of mind increased so much, as occasionally to render restraint necessary. This violence was chiefly in the night, for in the day time he usually lay in a dozing comatose state, with eyes half closed, and pulse scarcely perceptible; sometimes, however, groaning dismally, so that I considered him as in a dying state, and rather exhibited comfortable nourishment, than insisted upon medicine, which he much disliked. He never seemed wholly to lose his senses, but was aware of what he said, though it was wild and nonsensical; and he asked chiefly for wine, not for any other nourishment. He sometimes passed his urine and fæces in bed, but he was conscious of it, and immediately desired its removal; and he sometimes threatened that he would do the same wilfully, if he was not assisted at the moment he desired. His bowels continued to act regularly, and their discharge was natural. He never expressed the existence of any pain in his head at any time. He died on March 19th.

After death, his chest was examined, and the right bag of the pleura contained a large quantity of pus, which was confined to the anterior part, and retained posteriorly by adhesion between the two pleuræ; the lung itself was almost obliterated, and occupied but a small part of the cavity. The left side of the thorax was sound. The liver was much enlarged, and of diseased structure. But the reason why I relate the case arose from an accidental examination of the head, which was made by Mr. Stanley, when the following appearances were found.

Beneath the anterior part of the corpus callosum, in the centre of the cerebrum, there was formed a cavity of sufficient size to hold a large walnut, containing an admixture of thick pus and clots of blood; the surrounding cerebral substance being softened, and much altered from its natural texture. The commencement of the disease appeared to have been in the right hemisphere, near the lateral ventricle of the same side, into which the projection of the cerebral substance, containing the pus, had taken place. The cavity of the abscess was, however, distinct from that of the ventricle.

As, in some of the preceding cases, I have spoken of the abstraction of blood from the temporal artery, I think myself justified

in the further recommendation of this operation above all other modes, where, in diseases of the head, such abstraction is deemed necessary. It is easily performed, so much so, that in a case of great emergency, I once even ventured to undertake it myself; and any subsequent hæmorrhage from the artery which has sometimes occurred, as the preceding cases shew, may be easily subdued at any rate by ligature, or more easily by the complete division of the vessel. For the purpose of strengthening this opinion, I shall record one other case in which the relief it afforded was strikingly exemplified.

CASE XIII.—A gentleman, past the middle age, had for some time laboured under slight but uniform aberrations of mind, but he was cheerful in his disposition, full of affection for his family, and harmless in his conduct. During this state he had more than once suffered a slight epileptic attack, which had soon passed away without more inconvenience. I was called to him on account of a sudden fit which had then lasted for some hours, and had not been diminished by ordinary venæsection, or by purgative medicines, although the latter had operated, and produced their full effect. His countenance was loaded and dark, his eyes were starting, his breathing was loudly stertorous, and his mouth covered with foam. He was wholly insensible to external applications, and appeared to be verging fast towards dissolution. His pulse, however, was quick, and so full and hard, that I was induced to urge evacuations to a greater extent. The temporal artery was upon this principle opened, and successfully, for the blood was thrown out from it in a full stream. It was thought that in so desperate a state the evacuation should not be carried too far, and therefore it was determined to allow its continuance until the pulse should begin to fail. Rather more than two pint basins were taken before any such effect was produced, and I left the patient with very little hope of advantage from the treatment adopted, or indeed from any other mode; nor was I a little surprised on the day following to find him sitting in his drawing-room, rather clearer in his intellect than usual, but without any knowledge of what had passed, and as well in his bodily health, except some feeling of weakness, as he had been for a considerable time. Some months afterwards a similar attack proved fatal; and I have to regret, that permission was not granted by his friends for an examination of the head.

I shall here terminate this gloomy catalogue of incurable disease. In offering it to the attention of the College, I have only hoped to connect some important morbid alterations of structure with their previous symptoms, and thus to contribute to some future general account of diseases of the brain. Such as they are, I have drawn them from notes made at the moment; and, as I hope and believe, faithfully. All of them have been under the notice of other practitioners also, whose names would stamp them with additional credit, but I have thought that, by omitting these, I should better avoid the attachment of them to individuals, which, where the concurrence of their surviving friends cannot well be asked, is
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to my mind a proper delicacy; for the same reason also I have inserted no dates beyond what are necessary. Some of the diseased parts have been preserved; but I do not think they would have been more clearly illustrated by plates, than by a verbal description.

I shall shortly recapitulate the appearances recorded, with a reference to the cases. 1. A healthy state of brain, after stupor, insensibility, and convulsion. 2. Effusion of blood, with an instantaneous extinction of life. 3. A loaded state of the blood-vessels of the membranes, and an effusion of coloured fluid into the ventricles. 4. A strong and distinct adventitious membrane, covering the right hemisphere of the brain. 5. Caries of the temporal bone, with an effusion of pus and coagulable lymph under the dura mater of the right side. 6. Ulceration in the anterior lobe of each hemisphere of the brain, with aqueous effusion into the ventricles. 12. Ulceration in the brain. 7, 8, 9, 10, 11, 13. Tumours in the brain, of various structures, and in different situations. 14. A state of apoplexy, speedily removed by arteriotomy.

THE subject of *Elephantiasis*, or Arabian leprosy, having engrossed much attention from the faculty since the cases described in the Medico-Chirurgical Transactions and in the Medical Transactions, (see our last Number,) we trust the following will not be found uninteresting; it is copied from a black-letter book in the possession of Sir Joseph Banks, published in the year 1541.

The title of the book is, “¶ The Questyonyary of Cyrurgyens, with the Formulary of Iytell Guydo in Cyrurgie, with the Spectacles of Cyrurgyens newly added, with the Fourth Boke of the Terapentyke,* or Methode curatyfe of Claude Galyen Prynce of Physyciens, with a syngular Treaty of the Cure of Ulceres, newly enprynted at London, by me Robert Wyer, and be for to sell in Poules Churcheyarde, at the sygne of Judyth. Cum privilegio ad imprimendum solum.”

The chapter is superscribed.

“¶ The Manner to examyne Lazares; and to approue Lepry Meselry; after the Myndes of Doctours.”

“As Galyen wytnesseth it is greate iniury be it done to man or woman to departe & put away theym that be nat infecte w^t lepry, nor touched with meselry, & nat beyng lazares. And also it is greate danger to supporte, haunte, or be with suche as are stryken or dyseased therwith; for it is a contagyous and dangerous malady. And therefore they that ought to iudge and approue them

* Copied correctly; but probably an error in the press for *terapeutic*, that is, *therapeutic*. It appears, however, by other parts of the book, that the *n* was sometimes used purposely where the Greek etymology would require the *u*, and where the latter is at this time used.

shulde ryght dylygently beholde theym & considre the vnyuoke [unequivocal] sygnes and equyuokes also. And nat for one onely token gyue theyr sentences; but by many conuenaunces, and specyally vnyuokes. ¶ Fyrste than whan that the approuers come or cal them dyseased to theyr presence for to examyne them, they ought to conforte them with holsome wordes, and tel them that the sayd dysease is penaunce salutary for the saluacion of theyr soules, and byd them to take it pacyently. And that they feare nat to saye the trowth; for yf they were founde lazares it shuld be theyr purgatory in this worlde. For albeit that they were refused of the worlde; yet they were and be chosen of God, &c. And than cause them to swere to saye the trowth; and enqyre of them suche thynges as foloweth. ¶ Secondly the examyners ought to enqyre of theym by the prymaryse causes of lepry. And fyrste enqyre of them yf there were any of his lygnage that he knewe to be lazares; and specyally theyr faders or moders; for by any other of theyr kynred they ought nat to be lazares; but yf it were by some constellation that influed equally upon a kynred; and specyally on them that dwelt togyder, and haue one selfe maner of lyuynge; as me se ostentymes by the tyme of pestylence, yf any of a kynred be stryken or infect; y^e also many other as bretherne, and cosyns, or other parentes soone after are stryken, & yet or they haue be borne. For as Auycen [Avicenna] sayeth in his seconde treatyse the fyrste ten of the fourth of his Canon in the fyrste chapyter of rottennes. The fyrste cause of rottennes is meates; and the nourysshynge that is of euyl qualytees. And for that cause yf a chyld be nourysshed of a woman corrupte and infecte in her humours ought also to be infect. And nat all onely yf the mother be a lepresse; but let us beholde also y^e for the sayd cause by experyence that they beyng conceyued in the tyme that y^e woman hath her floures; and that she be nat clene that scantly the chyld scapeth lepry, or to be scalled, or tached with suche infecte dyseases; or that he bere some tache upon hym. Also yf the father were fecte [infected] and in the mater wherof he is composed. For as Galyen sayeth in the fyrste particle of the efforysmes of Ypocras upon this canon. Et qui crescunt. ¶ The thynges that are dissolved of an other thyng necessarily extendeth of the nature of the thyng wherof they ar dissolved. Than ought ye to enqyre yf he hath had y^e company of any lepresse woman. And yf any lazare had medled with her afore hym and lately, bycause of the infect mater and contagious fylth that she badde receyued of hym. It is to be noted that a woman is nat so dangerous to be a lepresse to habyte with a lazare, as it shulde be a man to habyte with a lazareous woman, or with one that hath habited newly wth a lazare. For all infections remayne in the matryce of the woman, unto the tyme that they be poured by theyr floures & clensed; whiche a man can nat do, bycause he hath no receptacle where to holde the sayd imundycytes. ¶ Than ye oughte to enqyre of hym yf he hath had the quartayne feuers; and howe longe syth. For howbeit (sayth Auycen in his fyrste ten of the fyrste booke of Canon)

Canon) the feuer quartayne deliuereth a man of euyl melanco-
lyke diseases; and wyte yf he hath nat had the emorroydes, and
syth whan-like reason; the emorroydes kepeth that he fall nat in
to inconuenyence. ¶ Than enquire hym of his dreames, and yf
his dremes be nat terryble, and that he seeth blacke thynges, and
deuyls; suche dreames betoken the melancolyke humour to haue
domynyon wherby he is so enclyned. And wyt of hym how he is
wont to lyue; as yf he hath used meates with stronge spyce and in
great quantyte, and strong wyne, or garlyke, lekes, onyons,
and colewortes, olde chese, gotes flesshe, of beares, of foxes, of
mesylswyne, or salt meates, and of unclene fysshe all at one ta-
ble, & yf he haue continued therwith. And also of all maner
herbes, and such meates as brenne the blode, and holly consumeth
it. Than aske yf he hath had great solycytudes, & chargeable
thoughtes that hath dried hym made hym melancolyke. ¶ Than
ye oughte to beholde and consydre in your selfe of what complexyon
he is, as wel naturall as accyidental, for suppose that lepry be a
colde disease by incineraciō of humours, yet Auycen sayth, the
most ancyent cause of lepry is the euyl complexyon of the lyuer
that is so hote and drye that it breneth the blode & melancolyeth
it. ¶ After y^e the pacient hath ben examyned upon the fyrste
causes that dyspose a persone to be a lazare, he hought to be exa-
myned and approued by the sygnes of lepry aswel equyuocalles as
vnyuocalles, and are the sygnes that cōueneth onely in this dysease;
and the equyuocal sygnes conueneth them in dyuers maladyes.
¶ Of the vnyuocal sygnes. Fyrste than in procedyng as it is
sayd to the knowledge of the vnyuocal sygnes, in folowing the
doctryne of Ypocras in the fyrste boke of y^e pronostikes sayeng.
Primo enim egrifacie ¶ notabis. Fyrste y^e shalt note y^e sygnes ap-
peryng in the face for they are the truest; for all the sygnes
vnyuocalles are holden there bicause y^e in y^e face amonge al other
mēbres of the persone is no greater nombre of spyrytes bicause of
the .v. organes of knowlege y^e is there. That are the hearyng,
speakyng, seyng, smellyng, & felyng, & also it is the barest of
fleshe; and therefore it is soonest altered of all y^e other mēbres;
& at this cause Gordon preserued a man at Montpyllier. x. yeres
to be cast out, agaynst the intencyon of all other doctours there,
because y^e tokens appered nat in the face, & yet it dyd ouer all
the other membres. ¶ Fyrste than begyne at the heyght of y^e heed,
& beholde his here & his browes, & plucke at them, & loke yf
with y^e rote they drawe any flesshe by the rottenes & corrupcyon of
theyr flesshe. Such by defaute of nourysshyng is soone seen.
Item fele wth thy fynger yf his browes be nat grauellous, and ful of
graynes, bycause that in al lepry the vertue assymulatyfe befayleth.
And for that cause whan y^e nourysshing cometh to the mēbres they
may nat assēble them to the mēbres at all, and therefore they re-
mayne grayny, the whiche thyng mounteth alway nexte the mē-
bres bare of flesshe as is the face. Than beholde his eyen yf they
be rounde specyally to the domestike partye. Also lykewyse yf
his eares be rounde & thicke and rugged. Also yf his nose-
thyrlles

thyrlles be wyde outwarde narrow win & gnawen. Also yf his lypes & gumes are foule styunkyng and corroded. Also yf his voyce be horse, and as he speaketh in y^e nose. And also yf his brethe and sweate stynke, and all that cometh fro hym; and yf there apere any straytnes of breth as yf wolde querken [choak], and for that cause haue the most haunte. Also yf his loke be steyed and horryble in maner of monster. These sygnes be vnyuocalles that alwaye betoken lepry; whan they are all or the moste parte of theym with the equyuocalles as it shall appere, and such sygnes come in lepry by these causes as Auycen sayeth. The fyrste generacyon of lepry is in the entrayles, and for that cause the lunges and lyghtes be hurte, and the pype of the voyce assysteth it, and causeth them to speke as it were in the nose. And for the rotten and corrupte fumes y^e mounte y^ewarde by the conductes of the brayne, and the heares lessen and fall for defaulte of good fedynge. And they appere in the face and in the brest.

“¶ Of the equyuocalles tokens.

“The doctoures put. vj. tokens equyuocalles. The fyrste is hardnes and tuberosyte of the ioyntes outwarde as the armes, legges, handes, and fete, for the drye mater, that is stopped by melancoly. The seconde is a morfewe colour & derke [freckle] for the blacke melancholyke humoure that corrupteth the blode. The thyrde is fallynge of heare, spoken of in the vnyuokes. The fourth is wastynge of a brawne, [muscle], and chyefly of a poulce, [thumb], so that whan it is pynched it abydeth vpryght by the consumption of the sayd muscle. The fyfth is the insensybylyte of the rotten humours of the outwarde partes extremytees, spredde within them. The. vi. is blacke coperous skal and scabbe in the face, and sores on the body by rotten humours and corrupt, y^estryue with y^e euyll fumositytes. The seuenth is graynes under y^e tongue, & behynde the eares, the causes are in the vnyuokes. The. viii. is breñynge and felynge of pryckynge ouer all the body. The. ix. is ruggyshnes of the skynne in maner of a goos, for the greate drythe of the blode and humours. And therefore they oughte to be vnclad & water caste on them, and loke yf it take and synke in the skynne by cause of theyr drythe; where it semeth that they are anoynted they seme so moche to be fat. The. x. that they be of yl rule, and are comonly begylers. The. xi. that they haue terryble dremes, as I said before. The. xii. y^e they haue weyke poulces. The. xiii. they haue whyte vryne, thynne, and asshy. The. xiiii. theyr blode is blacke and duskysse, of leady colour, and sandye; & to se this it must be wasshen and streyned.

“¶ The maner to let them blode, and to wasshe and strayne it.

“Fyloyne sayth, that there must be a great openynge in the veyne whan they be letten blode bycause the thicke blode shuld nat remayne and the thynne onely come out. And whan it is drawen, consydre the substance and the colour yf it be so as is abonesayde, and than wasshe it, and passe it through a fayre whyte cloth, and than loke on the flesshe that abydeth in the cloute, and yf it be graueylous and troublous it is a great token. Otherwyse take

saite

salte and medle it in the blode, and yf it melte soone. Another way, take his vryne and vynegre, and loke yf they wyll myngle togyther. Yet do thus, put some of the blode in to a basyn full of water, and yf it go downe to the botome lyke meale it is a token that he is a lazare.

¶ Then good Cyrurgyen do nat as a folysshe iuge that forthwith gyueth his sentence; but fyrste or thou gyue it preferre God before thyne eyes; and consydre dylygently the vnyuocal sygnes and the equyuocalles, and se yf they agree, but yet neyther iudge a man to be lazarus by the equyuocalles, nor for one or two of the vnyuocalles, nor by the least of the pryncypalles; but there as the vnyuocalles in all or in the moste parte, and of the pryncypalles accorde with y^e equyuocalles of the moste parte, and of the pryncypalles.

¶ FINIS. ¶ Thus endeth the maner for to examyne lazares, and to approue their diseases after the intencyon of doctours."

The perusal of the above will at once shew that the tokens have been copied from the various writers who have followed Aretæus without any alteration, and with very few omissions.

Rymer's *Fœdera* contains, it is said, the only instance in which the disease is judicially described; and here the subject was not found with the tokens.* If any of our readers can produce an instance of any record in which they were discovered on an individual native of Britain, it might lead to a proof that this formidable disease was frequent in these northern regions, though at this time it is only found in emigrants from the south.

CRITICAL ANALYSIS

OF RECENT PUBLICATIONS

IN THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND
MEDICAL PHILOSOPHY.

"Scimus et hanc veniam petimusque damusque vicissem."—HOR.

WHILST the Editors were in doubt whether Mr. Rootsey's* communication was suited to their work, a paper in a contemporary journal decided the question.

The candour with which every performance submitted to our notice is usually treated, has, by some, been condemned, as furnishing less amusement than the coarse humour with which journals of general criticism abound. In answer to

* See Adams on *Epidemics*, p. 110.

* See page 275.

these charges, we can only urge, that the gravity of our language appears to us best suited to the importance of our subjects; and, that, having been all of us early in life somewhat roughly treated, we may feel a degree of sympathy for our writing brethren. A charge is now made against us which we least of all expected, but for which we are ready to express our gratitude, as our utmost wish is to preserve a faithful register of every medical event. As soon, therefore, as we learned that objections were made against the remarks on Dr. Philips' paper, contained in our last number, those objections were instantly conveyed to the gentleman who honoured us with the article, with a request that he would either defend himself, or instruct us all in what manner we might confess our errors with the best grace. We have received the following answer, which we transcribe in his own words:—

GENTLEMEN,

I am fully aware of your instructions, "on all occasions to observe the strictest impartiality, to be careful that every remark shall be couched in gentlemanly terms, and that the true spirit and intent of every work shall be entered into and explained in as few words as are consistent with perspicuity." In all this it has been my endeavour to fulfil your wishes; and, upon perusing the article to which you refer me, I am obliged to admit two of the charges, namely, ignorance of Dr. Philips' intention, and an appearance of sarcasm in some of my expressions. The first, I hope, is venial, if not from the obscurity of the subject, at least from my confession; of the second I was not aware at the time, but, on a re-perusal, am forced to admit that some passages will bear such an implication.

It now becomes me to clear myself from wilful misrepresentation.

The first charge is, that I have taken no notice of Dr. P.'s former paper, though connected with that under consideration.

2dly, That I require respiration should be attended to in whatever relates to the actions of the heart, though the experiments in the last paper are unconnected with that process.

3dly, That my account of another experiment is unintelligible, because I speak of the extremities of the nerves when mentioning experiments on the brain.

The other charges shall be transcribed at length.

As to the first objection, I conceive the paper has been already noticed in your Journal. I, however, made it my business to peruse it, and fancied that in this, as in most of the

the French experimental physiology, one great error prevailed in not distinguishing between death and a cessation of action. Without repeating the disgusting cruelties of hot wires applied to the spinal marrow of various incisions, ligatures, &c. and contrasting them with the more tender manner of knocking at head, or suddenly and violently injuring the spinal marrow, these gentlemen should be taught, that, by a slow mode of killing an animal, life may be for some time retained in the various parts, which may, therefore, be affected by stimuli immediately applied to them: but by a violent blow, not only in an animal so easily killed as a rabbit, but even in the vivacious eel, absolute universal death* is often induced, either instantly, in which case the muscles will never contract, that is, stiffening will never take place,—or they will contract so suddenly, that is, stiffening, or, as Dr. P. calls it, a spasm on the muscles, will instantly follow, and be almost as suddenly succeeded by universal death, or a relaxation of the muscles never to be again stimulated. An attention to this single circumstance explains all the difficulties in Haller and in Gallois, without the necessity of any one of Dr. Philips' numerous experiments, or the philosophic candour with which he wishes to treat the French physiologist.

Secondly, in attending to a description of the actions in the heart and arteries of stunned or decapitated animals, the reader can scarcely fail to inquire whether respiration continued in the first, or was artificially maintained in the second.

Thirdly, Such physiologists as still conceive that the nerves originate from the brain, may continue to adopt the term, *origin* of a nerve for its superior extremity; and, in common language, this may be of less consequence, but in philosophical controversy it appeared to me more correct to use the term *extremity*; and you may perceive by the context that there can be no possibility of doubting which extremity is intended.

You will now give me leave to transcribe from the journal you have done me the honour to send me the following words of my antagonist.

“Mr. Hunter, the reviewer alledges, has anticipated the results of Dr. Philips' experiments. ‘The heart's motion,’ says Mr. Hunter, ‘does not arise from an immediate impulse on the brain, as it does in the voluntary muscles.’ This is a peculiarly unfortunate quotation; the result of Dr. Philips' experiments being exactly the reverse of Mr. Hunter's assertion. It appears from them that the heart's motion often does arise from an immediate impulse

* See Hunter on the Recovery of Persons apparently drowned.

on the brain. No man has a greater respect, I may say veneration, for Mr. Hunter, than the writer of this paper; but I feel no hesitation in affirming, that the works of this great physiologist contain no anticipation of the views afforded by Dr. Philips' experiments."

This respect and veneration for Mr. Hunter may be very great, but I trust some of your readers will think it much lessened when it is more than hinted that so respectable, so venerable a name, is to be eclipsed by Dr. Philips'. Let us examine, then, the passage, and see whether the compliment I wished to pay Dr. Philips in confirming his accuracy by the authority of Mr. Hunter is not well founded.

Mr. Hunter says, "the heart's motion does not arise [*or originate*] from any immediate impulse on the brain." Dr. Philips shows "that the power of the heart is independent of the nervous system." That its ordinary motion may be accelerated by stimuli applied to the brain, or to any part of the body, did not require an experiment for its proof. This will be further explained in my remarks on the following extract.

The words of my antagonist are—

"He then observes, 'Some remarks follow on the effect of communicating sensation,'—motion, he should have said,—'by the nervous ganglia. In these there is nothing new.' The points on this subject, ascertained by the experience of Dr. Philips, are, that the heart obeys stimuli applied to every part of the brain and spinal marrow; and, consequently, that nerves issuing from ganglia, the only nerves which the heart receives, convey the influence of every part of these organs, while those parts of the body not supplied with nerves from ganglia obey only the minute parts of the nervous system from which their nerves arise. Now, either the reviewer knows of some work not known to the public, in which Dr. Philips has been anticipated in this discovery, or he has here stated what he cannot confirm."

I am much obliged to this gentleman for setting me right in substituting the word motion for sensation: perhaps we are both wrong, and, instead of altering the noun, it might be better to alter the verb, using *exciting* instead of *communicating*. It will then be seen, that, as the motion could only follow the sensation, it is of less consequence which term is used. It may serve, however, to puzzle, if that were necessary; but to me the remainder of the paragraph is puzzling enough of itself.

You will not, I am sure, accuse me of inattention to the events passing in the medical world, nor, I trust, doubt the truth of my assertion, that Dr. P.'s paper occupied more of my time and application than all the other works which arrived
by

by the same packet. If his experiments (I am not speaking of his inferences) really show, or even imply, that the distribution of nerves in the heart is different from that in the rest of the body, or even if they showed any thing in this respect different from what was generally known, I confess it escaped, and still does escape, my notice. If they only showed that the heart sympathizes with every part of the brain, without the necessity of the will, whilst the involuntary muscles only sympathize with the brain according to the directions of the will,—all this, I conceive, is contained in Mr. Hunter's remark, to which I referred your readers, "that the motion of the heart, that is, its regular alternate contraction and relaxation, does not arise from any impulse on the brain, like the voluntary actions of the muscles usually termed voluntary."

After very long study, however, I am somewhat doubtful whether Dr. Philips and his encomiast may not mean more than occurred to me before. The heart is supplied with nerves only from the ganglia, and is affected by stimuli applied to every part of the brain and spinal marrow: *ergo*, nerves issuing from ganglia convey the influence of every part of the brain and spinal marrow; while those parts whose nerves do not issue from ganglia are only affected by stimuli applied to parts of the brain and spinal marrow immediately contiguous to that part of the brain or spinal marrow from which they issue. If this is his meaning, more experiments are required. The muscles of the abdomen, and the intercostal muscles, receive their nerves from ganglia. Are these also affected by stimuli applied to every part of the brain and spinal marrow?

Such, gentlemen, is my defence. I will not, however, assert that Dr. P.'s experiments throw no light on pathology. They may lead us to some important conclusions concerning convulsions, which may be improved by those who draw proper inferences. I sincerely hope, therefore, that Dr. P. will continue his experiments, with less cruelty; and in future I shall relieve myself from too close an attention to his inferences, conceiving it enough to admit the faithfulness of his reports.

I have the honour to be,

Gentlemen, &c.

Medico-Chirurgical Transactions, published by the Medical and Chirurgical Society of London. Vol. VI. 8vo. Longman and Co. London.

THE first article in these Transactions is a long and very valuable paper from Dr. Calvert, giving an account of the origin and progress of the Plague at Malta. On this, as a subject

a subject connected with the doctrine of contagion, we shall give as copious extracts, and with as many remarks, as our limits will permit. The paper begins in a manner which arrests our particular attention to these subjects.

“The following communication has two objects in view: first, to give a faithful narrative of the introduction and progress of the plague at Malta, in the year 1813; and, secondly, to ascertain, from induction of facts, the laws of pestilential contagion, so as to direct us in the employment of preservative means; but particularly as relates to the construction of lazarets, and to the admission of people known to be infected within our ports.

“Towards the accomplishment of these two ends, the most prominent circumstances that occurred during the pestilential season are selected, while the principal proclamations and other public documents are given without comment, that the facts themselves may be seen without the colouring which they might receive from argument.”

“I do not believe, (concludes Dr. C. in this introductory part,) as it will be seen, that the plague found its way into the island and spread itself from want of exertion on the part of government, or of the department of health; for almost every human means were put in force in conformity with the popular doctrine of pestilential contagion; but the grand and fundamental error, I believe, was wholly and solely in the doctrine itself.”

The rest of the paper occupies sixty pages: we can, therefore, only admit an abstract of the historical part.

The following is the history of the vessel and crew which are supposed to have introduced the pestilential contagion into Malta:

“On the 29th of March, a vessel called the *San Niccolo* arrived at Malta, from Alexandria in Egypt, the master of which informed the officers of health, as he came into port, that he believed the ship was infected with plague, having lost two men during the voyage of what he strongly suspected to have been that disorder, particularly as it was raging at Alexandria when he left that place. One of the men, he said, had a black tumour upon his neck, to which he himself had applied poultices. He also added, that as soon as the two men died, he immediately suspected the nature of their disease; and, by way of precaution, ordered the hatches of the ship to be closed, and kept the men on deck. This happened about a week previous to his arrival in Malta, and during the interval they had eaten nothing but a few biscuits that happened to be left on deck.

“The master and surviving part of the crew, being apparently healthy, were permitted to disembark in the lazaret; not, however, before they had taken the usual precautions of shaving their heads, washing themselves with sea-water, and afterwards with vinegar, and of leaving their clothes behind them in the ship.

“As

“As the crew consisted of men of different nations, they were divided into companies accordingly, each company being provided with two apartments in the lazaret; and, as the captain and his servant were both Maltese, they lived together.

“The whole continued, in appearance, to enjoy the most perfect health till the 1st of April, when, on the afternoon of that day, the captain, while playing at ball, was suddenly seized with head-ach, giddiness, and other symptoms of plague; and he died in the course of about thirty-six hours. His servant, who had also assisted the sick men on board, was seized about the same time with similar symptoms, and he died after a like interval. They were both buried in the lazaret.

“While these things occurred on shore, the usual precautions with regard to the ship were not neglected. She had remained in the middle of the quarantine harbour from the time of her arrival, with two guard-boats stationed near her, to prevent every kind of communication; and she continued in this situation near a fortnight, at the end of which time a number of men were hired, for a considerable sum, to conduct her back to Alexandria.

“The ship and the whole of these men arrived safe in Alexandria, and the cargo was afterwards taken out without a single individual being infected, as appears by the following letters from the British consul at that place, addressed to Lieutenant-general Oaks, the King’s commissioner at Malta.

(Translation, No. 1.)

“ ‘ May it please your Excellency,

“ ‘ It is with the greatest satisfaction I have the honour to inform you of the safe arrival here, on the 4th of May, of the brigantine, S. Niccolo, Captain Alexander Scarneo. Besides, the crew are all in perfect health.

“ ‘ As no quarantine is observed at this place, the crew had permission to leave the vessel whenever they pleased. As to the disposal of the cargo, we are in daily expectation of an order from his Highness the Viceroy.

May 8th, 1813.’

(No. 2.)

“ ‘ In addition to what I had the honour to communicate to your Excellency on the 8th of May, by his Majesty’s sloop Badger, respecting the brigantine S. Niccolo, commanded by Alexander Scarneo, I have now to inform your Excellency, that the brigantine has been entirely unloaded, and that the clothing, bedding, &c. have been disembarked; and that I ordered the vessel to be ventilated, washed, fumigated, and white-washed throughout every part, to be painted without, and the sails and rigging to be washed, and the seams pitched. I have the pleasure to add, that no person employed in unloading the brigantine has been attacked with plague, and that this disease has almost entirely disappeared here. (Signed) STEFANO MALTAS, British Consul.

June 1st, 1813.’”

We here take our leave of the vessel, cargo, and crew, and return to the island of Malta.

“As the survivors of the original crew continued healthy in the lazaret of Malta, and as the dreaded ship no longer remained in the harbour, the deluded inhabitants began to congratulate themselves on their supposed happy escape.

“But, on the 19th of April, a Maltese physician, Dr. Gravagna, being called to visit a child of the name of Borg in *Strada S. Paolo*, found it in a dying state, of what he then believed to be a typhus fever. He observed a carbuncle on its breast; but, as this was small, and as the family were subject to cutaneous disorders, the real nature of the disease was not suspected. The child had been ill five or six days.

“On the 1st of May, the same physician was again called to see the mother of this child, whom he found affected with fever, accompanied by a painful tumour in the superior inguinal glands. On the 3d, she was delivered of a child of seven months, which died as soon as it came into the world. In the course of the same day, another tumour of an inflammatory nature was perceived in the glands of the other groin of the mother, and she died before the next morning.

“During the sickness of the mother, another child was attacked with fever, which, however, did not prove mortal.

“The father of this unfortunate family, Salvator Borg, had not long to bewail the loss of his wife and infant, before he himself was threatened with a similar fate. On the morning of the 4th, he was attacked with fever, accompanied with glandular swellings in the axilla and groin.

“Dr. Gravagna, being now no longer in doubt as to the nature of the disease, related every thing that had happened to the deputation of health. On hearing the account, they immediately ordered that not only Borg's family, but every individual proved to have had the least communication with it, should be instantly removed to the lazaret; and this order was executed with the greatest care and industry.”

Without pursuing the disease further, it is sufficient to remark, that the general opinion at Malta was, that the plague could only be communicated by contact; but, in the instance quoted, not only no contact could be proved, but none was within the reach of probability. Innumerable other instances are produced in which the plague spread in a similar manner, and some in which the closest contact was unattended with any ill consequences. The proclamations, and their strict observance, are next transcribed, with satisfactory remarks: the history then continues—

“In spite of these and many other rules and regulations, the disease continued to spread itself in every part of the city, attacking principally the poor, and those inhabiting small and dirty
houses,

houses. The veteran soldiers, too, who were placed at the doors of the infected houses, were frequently attacked. On the 18th, there were seven people attacked. On the 19th, three attacks and eight deaths; and on the 20th, eleven attacks and ten deaths, according to the reports."

Whilst the gentleman to whose review we submitted the above article was preparing his remarks, we were favoured with the following communication, of which he has availed himself.

GENTLEMEN,

Having been honoured with a perusal in MS. of Dr. Calvert's Account of the Plague at Malta, I took the opportunity of introducing that gentleman, with his paper, to some persons high in office in this kingdom. Having also considered the subject very maturely, my opinions in writing were submitted to the same authorities. If they will be at all useful, or are thought worthy of your notice, they are quite at your service.

I am, Gentlemen, &c.

JOSEPH ADAMS.

Reasons for doubting the Conclusions drawn by Dr. Calvert from the facts he observed during the Plague at Malta; by Dr. ADAMS.

I CAN have no intention to question the accuracy of Dr. Calvert on any incident related from his own knowledge, or even which he found well authenticated during his residence at Malta; but it should be remarked, that when the vessel which is supposed to have introduced the plague arrived at that island, the doctor was in Sicily. In the history of this vessel we are informed—

That two of the crew died during the voyage of a disease which the captain suspected to be the plague.

That, in consequence, he kept himself at a careful distance from such of the crew as he suspected; and gave information, on his arrival at Malta, of all that had happened.

That, on his arrival, he was ordered to the quarantine island in the harbour, where he died of the plague.

That the quarantine was observed with as much severity as possible, and, there is no reason to doubt, with equal fidelity.

That the first subjects who were attacked were in a part of the town distant from the sea side, and in a very close and dirty street.

That the greater part of that family died.

That every precaution was taken to prevent intercourse, and the disease for a time seemed to cease, which was, of course, imputed to the cautions used.

That subsequently the disease appearing in various parts of the town, but never spreading, excepting in the narrow and crowded streets, it was thought advisable to divide the town into districts,

by barriers, and to place a sentry at each barrier, in order to prevent any dangerous communication between the different parts.

That, notwithstanding all these precautions, the plague broke out at various parts of the town, and whenever it began in a close or crowded street, it continued to spread.

That, in Dr. Calvert's opinion, it was always conveyed to every new place by the arrival of a person with the disease on him, or seized with it soon after his arrival.

That, on the approach of winter, or on some change of the atmosphere, the disease ceased.

That the ship returned with a fresh crew to the port from which it was supposed to have brought the plague, and, without any quarantine, the crew, which had not suffered in the supposed infected vessel, were permitted to land all their cargo, which they did without injury to the inhabitants.

That almost all who were sent to the city lazaretto died.

That few died who were received into the military hospital; and that the disease did not spread there.

That persons affected with other diseases soon found them converted into the plague.

That one woman among the military, much addicted to drunkenness, was seized with the plague, and died; but that the disease did not spread among the soldiers.

That very few escaped of those who were sent to the civil pest house.

From the above history I should venture to draw the following conclusions:—

That if the men who died during the voyage had the plague, which is highly probable, there is no proof that they brought it from the place at which they received the clean bills.

If they really introduced the plague into Malta, neither certificates nor quarantines are any security; and it is certain that they returned from a port [Malta] which could not give them a clean certificate, to a port free from the plague, without any quarantine, and without introducing the plague.

If the men had the plague during the voyage, it is not more remarkable than that part of the crew of a ship should be seized with mumps during a voyage from a port at which the disease did not exist. This is by no means uncommon; but a much more frequent event is that a crew leaving a port in health shall be seized with influenza during their voyage. Thevenot, in his *Voyage au Levant*, gives a short history of an epidemic catarrh which reigned in Grand Cairo, with such severity, and so universally, that he does not scruple to consider it *si contagieuse que se gagnait facilement par la communication d'haleine*. The disease, he adds, extended itself so far, that afterwards, when they were at Jerusalem, and at other places round about, it was found those places were afflicted at the same time, and even the corsairs who took them had it at that time. Here a disease, the cause of which evidently only existed in the atmosphere, was pronounced contagious, merely on account of its
 universality

universality in crowded towns and in a ship's crew. The arguments in favour of contagion in influenza are as strong as those concerning the plague. Indeed the plague of Athens, as it is called, is the only contagious disease mentioned by the ancients, if we except Aretæus's suspicions concerning Elephantiasis; yet Thucydides, who gives this character to the disease at Athens, describes it, in its beginning, precisely as an influenza. In its progress it assumed all the forms of a garrison fever, with hospital gangrene.

From this I should conclude that the same constitution of the air as induced the plague in Malta, first introduced it into a crowded vessel; that in the latter the common men only were infected, because they only were crowded. But, that on their arrival at the lazaretto, the captain, having now changed the deck of his ship, on which he was exposed to a constant change of atmosphere, for an island within a confined harbour, so low as only just to rise above the water, was constantly breathing an unchanged atmosphere; and that the great and sudden change from a free atmosphere to the confined air in a flat island, in a good harbour, was sufficient to account for his greater susceptibility; and such is usually the case with fresh comers, who are the first seized with yellow fever.

No one disputes that the quarantine was strictly observed; yet the plague first appeared at a distant part of the town, in a crowded neighbourhood, and a close street. The customary precautions were taken, and, it was supposed, with success; yet the plague afterwards appeared in various parts, in all of which it was supposed to be brought by different persons from the infected parts. But why are we to look for such a cause, when we find that the first persons affected in the town could have had no intercourse with the harbour.

Those who were sick of other complaints found their diseases changed into the reigning epidemic, an observation as old as Thucydides, and constantly occurring with every severe influenza. The question should, therefore, have been, whether these people, among the wealthier or better-regulated communities, communicated the disease? There is not a single proof that they did; and we are expressly told that the female drunkard who was affected in the barracks never infected any other person.

That the persons employed to bury the dead on these occasions suffered, contrary to what happened in European houses, is easily explained. At Malta they fetched the dead from pestilential quarters of the town. Among the Europeans they are taken from houses in which solitary cases have occurred in healthy families.

All these questions are unnoticed by Dr. Calvert, as well as in the progress of the plague at Aleppo, as described by Dr. Russel; yet these two accounts may be considered the only histories of the infectious march of a plague, containing matter sufficient to admit of satisfactory reasoning. They both induce me to believe that the plague, like the yellow fever in the crowded towns of hot climates,
like

like the influenza in all climates, is a disease arising from a certain constitution of the atmosphere, requiring, besides the said constitution, a situation in which the same atmosphere may remain unchanged for some time, or such a state of the human constitution as renders it particularly susceptible of disease, which is soon converted into the reigning epidemic. Consequently, that the means used for checking the infection are not entitled to any credit, inasmuch as the disease spread during all these cautions in crowded neighbourhoods, and existed, without spreading, in airy and well-regulated communities; and ceased, according to the usual progress of the disease, with a change of temperature.

On one remark I must beg to be a little prolix. Dr. Calvert says, that the disease was traced from one city or one village to another, rarely, as far as my memory extends, revisiting the same district, though sometimes sporadically a little before or after it became completely epidemic. In all these cases he says there was evidence that it was conveyed by a diseased subject, or by a person who came from an infected district.

I know not how to reconcile this account with the cautions which were used, but by supposing that when the disease became epidemic in a town or village, it was afterwards discovered that it first appeared on a new comer, who probably had been, at some former period, in some infected district; but who probably was only the first seized by being more susceptible from the new kind of atmosphere which he breathed. This is not peculiar to epidemics arising from a mere altered constitution in the atmosphere; but occurs even in the contagious. The small-pox commonly attacks Lascars on their arrival in Wapping. No one will suppose that they have introduced it; but they are more susceptible of the slightest impression from a cause to which they are less familiarized than the natives of the port at which they arrive. In epidemics purely atmospherical, and exasperated by the crowding together of the inhabitants, it is much more remarkable. The suspicion of the importation of the yellow fever arose from the fresh-arrived sailors being usually first attacked; but the migration of the disease from one district to another is so exactly similar to another known to be purely atmospherical, that I cannot avoid copying the following account from the late Dr. Heberden's History of the Influenza of 1782, published in the Transactions of the London College of Physicians.

“After three or four days from its first appearance had elapsed, it was observed, in several instances, that when any individual in a family was attacked with this distemper, the greater part of that family, and sometimes the whole, was very soon after seized with it; and that those who were thus seized were not successively but almost all at once taken ill; and frequently with symptoms similar in kind, but differing in degree. In other instances the disease went successively through families; while to others, and those numerous, it was so favourable as only to attack very few in each. It was also remarked, that those whom business or inclination carried

carried into the air, and who exposed themselves to the vicissitudes of the weather, were not more subject to the influenza than those whom occupation, accident, or previous indisposition of another kind had confined at home. Very early in June, three families, consisting of seventeen persons, came on the same day to the hotel in the Adelphi buildings: they were all in perfect health when they arrived; and they were all affected the next day with the symptoms of the illness then reigning in London.

“The disease appeared earlier in towns, than it did in the surrounding villages; and in villages earlier than in the detached houses in the neighbourhood.

“In some instances it was observed that the influenza did not shew itself in certain places until some one or more arrived at those places either actually labouring under the disease, or coming immediately from other places, whose inhabitants had been affected by it for some days; while, in other instances, very attentive and intelligent observers could not trace any communication between the families first attacked in the towns in which they resided, and other places, where the disease had previously appeared.”

“We have credible information, that a family which came in the Leeward Island fleet; that arrived in England the latter end of September, 1782, from the West Indies (where the disease had not made its appearance), was attacked by it in London in the beginning of October,” [yet the disease had ceased in London at least two months; but the new-comers, from their greater susceptibility, were affected. So it was with the English army in Egypt: the new arrived troops were affected before the plague was suspected in the country; and others, who arrived after it had ceased, were affected also.]—See vol. iii. page 54 (art. viii).

Thus, whilst I perfectly agree with Dr. Calvert that the disease is conveyed by the atmosphere, I conceive, contrary to his implication, that a diseased subject is not necessary; but that the constitution of the atmosphere, when that atmosphere is confined, is sufficient to induce the disease in such as are susceptible of it; that, without such a constitution of the atmosphere, it cannot invade any one; and that this atmosphere is more dangerous in proportion as human subjects are more crowded; and that the susceptibility is increased by previous illness, or any debilitating cause.

The practical inferences from the above are—

That, whatever may be the source of the plague, or the cause of its spreading, quarantines have hitherto proved useless. That, should it be thought necessary, on account of the general prejudices in their favour, to continue them, it is but reasonable to keep the crew on board their own ship, where they cannot suffer by landing in a lazaretto dangerously situated, and where they may remain till they are all convalescent, and be allowed to land, after being washed on deck, and clothed in raiment sent them from shore.

That, as no means were sufficient to prevent the march of the plague from one district to another, or, as it is called, the spreading

ing of the infection during the autumnal months, the business of the police should be to lessen the ravages of the plague during those months, without expecting its extinction before the change of season. Instead, therefore, of confining every one to pestilential houses and districts, no one should be allowed to enter them; and proper encampments should be prepared for all those who chuse to leave them, which they should be encouraged to do by bringing their sick with them.

If the account given of the fever of Gibraltar in the last volume of the *Medico-Chirurgical Transactions* is examined, it will be found, in its infectious march, in many respects similar to that of the plague in Malta; and its introduction by a diseased subject, though by no means satisfactory, rests on better grounds than the introduction of the plague at Malta by the suspected vessel.

Institution for administering Medical Aid to the Sick Poor, and assisting them and their Families with the Necessaries of Life during Sickness; and for preventing the Spreading of Contagious Diseases. 8vo. Dublin, 1815. pp. 27.

THOUGH this performance is intended only to assist the charitable designs of those who drew it up, it is well worth preserving as a medico-statistical record. As a specimen we have selected the following:

“Among the complaints peculiar to women, that come daily under our care, there are scarcely any (leucorrhœa and obstructed menses excepted) for which we are so repeatedly consulted, as for uterine hæmorrhagy. The treatment of this sickness is well understood, and commonly efficacious. But unluckily it sometimes takes place at and even after the critical period, when it is, in most instances, the precursor of or the attendant on uterine cancer. Though a prophylactic regimen may be occasionally serviceable against the accession of this deplorable malady, yet no established cure has been hitherto discovered for it in its confirmed state. In a conversation with Doctor Osiander, junior, on this subject, I heard him advise the extirpation of the diseased part, as is done when a similar evil affects the breast at the same stages of life. It is reported in some medical journals that this operation was performed in Gottingen by Doctor Osiander, senior; and that it has been lately practised by Mr. Dupuytrien of Paris. Though I have not seen any historical detail in confirmation of the cases in question, I do not pretend to controvert this assertion of facts on the part of such respectable authorities. But at the same time I hesitate not to maintain that their example will not be often followed. The remedy seems to me to be, in general, equally desperate as the malady which it is intended to remove. Every practitioner knows, that when he is consulted about this complaint, and that he ascertains the existence either of scirrhus or cancer, the disease has, in most instances, already made much progress, occupying

pying the entire cervix, with a considerable portion of the body of the uterus, and the whole subjacent region of the vagina, as far anteriorly as the urethra and posteriorly near to or close on the rectum; and that no efficient amputation could be practicable without wounding both or either of these canals, especially the former. We have besides to apprehend the hæmorrhage and other dangerous consequences that must result from so extensive an organic destruction in the pelvis. I would wish to learn how long the persons operated on by the above-mentioned gentlemen survived; or, if they be still in existence, what degree of health do they enjoy. I am inclined to conjecture that each of them laboured under no more than an incipient state of scirrhus, of little extent, or a partial and small induration of either side of the os tincæ, such as the modesty and negligence of our patients seldom permit us to take timely notice of. Even under these less unfavourable circumstances, how can the surgical instrument be employed, without offering violence to the uterus, and dragging it down from its natural situation?

“Many of the complaints that afflict children, being equally common to adults, are noted above. I make no remarks at present on their dentition and its concomitant train of affections; nor on their vomitings, intestinal pains, convulsions, water on the brain, or rickets; all of which are of familiar occurrence in our walks. They are subject to worm fevers, with mid-day and evening exacerbations, which correspond to what some physicians denominate the remittent fever of infants. These are, for the most part, advantageously treated by the administration, on alternate days, of a few grains of rhubarb or jalap with a little submuriate of mercury.

“With respect to general cathartics for infants, the last-mentioned articles are often used: *oleum ricini* evacuates their bowels as satisfactorily as any matter that can be given to them, though its administration is by times attended with difficulty. Syrup of pale roses and syrup of violets are mild purgatives, particularly suitable to the early stage of infancy. Subcarbonate of magnesia is a corrector of their flatulencies.

“Scrofula, which is far more common in children and young persons than in people of advanced years, and more frequent and obstinate among the poor than the rich, is not very high on our list: nor can I say that its annual number is proportionably greater in Dublin than in most other cities. Many of the means that contribute to obviate, alleviate, or cure this ailment, viz. cleanliness, good air, nutritive diet, warm clothing, and sea-bathing, are in general not within the reach of the poor. Among the numerous tonic remedies recommended in scrofulous cases, cinchona is that of the benefit of which I have the most experience. I often prescribe a little of it to be taken in a state of mixture with a few grains of subcarbonate of soda, and sometimes by itself; and I occasionally interpose a mild purgative. The minor glandular tumours of this malady are at times discussed by their being kept covered

vered with the emplastrum saponis. The topical employment of bruised sorrel leaves (*rumex acetosa*) are recommended as contributing to the cicatrization of indolent scrofulous ulcers; I tried them on one or two patients with good effect. I have, on many occasions, had cause to be much satisfied with the application of the unguentum nitratis hydrargiri to these, as well as to herpetic sores. I have reason to think that muriate of lime is not employed as often as it merits. It is scarcely to be met with in the shops, though it can be easily made, or an abundance of it may be procured at little or no expense in the manufactories of mild and caustic ammonia.—The French physicians give bark, ferruginous preparations, and muriate of barytes, sometimes, but much seldomer than is done in Great Britain. They are in the daily habit of ordering one or other of the following antiscrofulous medicines, namely, bitter tinctures, such as one obtained from equal parts of gentian and rocket* roots, or that prepared from gentian and rhubarb, with the addition of carbonate of soda; strong decoctions of hops, and of the woody night-shade.† The two last matters are also had recourse to in herpes.”

On a future occasion we shall endeavour to compress the nature of this institution in our Intelligence: with this view we are employed in gaining further documents, which we find the more necessary, on account of the different state of society and police in the two capitals.

Dissert. inauguralis medico physiologica sistens historiam Veneni Upas antiar, nec non Experimenta, et ratiocinia quædam de effectibus illius, auctore Schnel. Tubing. 1815.

THE author relates, in the preface, his having been present at the experiments mentioned in the dissertation, and performing the greater part, when he resided at Bern, where they were made, by Prof. Emmert, assisted by his *Prosector* Dr. Meyer; and that the former entrusted the same to him, to form the *material* for his inaugural dissertation. He next touches upon the history of the Upas poison, which, with the exception of Leschenault's account, had been disguised by fables. The poison employed in the said experiments Prof. Emmert received from Mr. Leschenault: it was exclusively Upas antiar, the same sort which Leschenault and Brodie had already employed in a few preceding experiments.

From the experiments made upon animals with this poison, the following results are deduced:

The Upas antiar is a deadly poison to all animals, both of

* *Brassica Eruca.*

† *Solanum Dulcamara.*

warm and cold blood, though less dangerous to the latter. Its poisonous effects also proceeds from the medulla spinalis, to which the poison must be communicated by means of the blood-vessel system. The symptoms of poisoning are the following:—the respiration and pulse becomes quicker; weakness of the voluntary muscles, and tremor of the limbs, succeed soon after; the animal drops down, vomits, has evacuations by stool and urine, pants for breath with a distended mouth; convulsions and opisthotonus follow; the pulse grows weak and intermittent, is entirely wanting, or scarcely to be felt. After death, the heart is dilated with blood. When the poison is introduced into the stomach, the latter seems slightly inflamed. Contrary to Brodie, it is maintained, that the Upas poison does not kill by palsying the heart, as in some cases the heart was seen to beat lively even after death.

MEDICAL AND PHILOSOPHICAL INTELLIGENCE.

WE copy the following from Dr. Thompson's Annals of Philosophy, not venturing our remarks till we see the paper at length. All our attention, during the reading of the paper at Somerset Place, was insufficient to enable us to combine the reasoning with the experiments in a manner satisfactory to ourselves:—

Royal Society.—At a meeting of this society, on Thursday the 25th of January, a paper by Dr. WILSON PHILLIPS was partly read, containing experiments on the nervous influence in secretion. In two former papers he had shown that the circulation of the blood and the action of the muscles were independent of the nervous influence, and that this influence only acted on the muscles like any other stimulus. But the case is very different with the secretions. Whenever the nervous influence is interrupted the secretion is at an end. Several rabbits had the eighth pair of nerves divided, and in all of them the parsley, which they ate after the operations, remained in the stomachs quite unaltered, and exactly resembled parsley chopped small with a knife. The stomach was always much distended, and a portion of the food was contained in the œsophagus. This was owing to the unsuccessful attempts which the animal made to vomit, which always follow the division of the eighth pair. The animal soon shows a violent dyspnœa, and seems to die at last of suffocation.

Since the experiments of Galvani on animals, it has been a favourite opinion of many physiologists, that the nervous influence is the same with galvanism. To put this to the test of experiment, a portion of the hair of a rabbit opposite to the stomach was shaved, a shilling tied on it, the eighth pair was divided, and the extremities

of the nerve coated with tinfoil. These were connected with a galvanic battery of forty-seven pairs of plates, four inches square. The trough was filled with a liquid composed of one part muriatic acid and seven parts water. This action was kept up for twenty-six hours. No dyspnœa took place; and after death the food in the stomach was found as much digested as in the stomach of a healthy rabbit which had eaten food at the same time. The smell of the parsley was destroyed, and the smell existed which is peculiar to the stomach of a rabbit during digestion. This experiment was several times repeated with the same result. So that it appears that the galvanic energy is capable of supplying the place of the nervous influence, so that while under it the stomach digests food as usual.

Dr. Philips likewise made a number of experiments to show that heat is a secretion from the blood, produced by means of the nervous energy. When new drawn blood is subjected to the action of the galvanic battery, it continues several degrees hotter than blood not subjected to the same process.

On Thursday, the 1st of February, Dr. Wilson Philips' paper was continued: he considers it, as proved by his experiments, that the ganglia communicate to the nerves proceeding from them the general influence of the brain and spinal marrow. Nerves proceeding from them supply all the involuntary muscles. But if this be the case, it will be asked, how comes the digestive power of the stomach to be destroyed by cutting the eighth pair of nerves, seeing that the stomach is supplied with nerves from ganglia? The eighth pair coming from the largest portion of the nervous matter, possesses the greatest influence; but the digestive power of the stomach is weakened likewise by the interruption of the nerves proceeding from ganglia. This he proved by destroying part of the lower portion of the spinal marrow of different rabbits. In every case the digestive power of the stomach was impaired or destroyed; the urinary bladder and rectum lost the power of discharging their contents; and paralysis of the lower extremities ensued, and a great degree of cold took place. The heat of one rabbit before death sunk as low as 75° . Though the power of the stomach, as an organ of digestion, is destroyed by cutting the eighth pair of nerves, still its muscular power remains; but it does not act as usual, because the stimulus of digested food is wanting; or it acts so as to throw the food out of the stomach the wrong way, in consequence of the unnatural stimulus of undigested food.

On Thursday, the 8th of February, Dr. Wilson Philips' paper was concluded. He shewed that the heat of animals was in all probability owing to the nervous energy. He finished his paper with a general view of the facts which he had established in the three papers which he had laid before the Royal Society. The muscular energy depends upon the particular structure of the muscles; the nervous system is supported by the sanguiferous; but the sanguiferous can act without the influence of the nervous system. Secretion and animal heat are entirely dependent upon the nervous system.

system. Hence the muscles cannot for any length of time continue to exert their energy if the nervous influence be cut off. The nervous influence appears the same with the galvanic energy.

Mr. TODD, a surgeon in the Royal Navy, presented an account of his observations made on the Torpedo at the Cape of Good Hope. The peculiar organs of this animal have been described by the late Mr. Hunter. Mr. T. found that when the electric organs are often excited they lose their power, and the animal dies much sooner. Its first strokes are always the most violent, and grow gradually more and more feeble until quite exhausted, and then the animal dies. The author cut open the little tubes or electric organs in the breast; and by this process the animal lost its electric powers, but continued to live longer than those whose electricity was entirely exhausted. The torpedos subjected to these experiments were smaller than those found in the northern seas, being only from five to eight inches long, and from three to five broad. They were caught by the sailors, when fishing in the usual manner, while the Lion lay at anchor off the Cape. Some of the torpedos manifested a kind of reluctance to give shocks; others parted with them very freely: hence the author is inclined to believe that it requires a considerable effort in the animal to give shocks, and that it shortens its life. The torpedos were kept in casks of salt-water, in which they lived from two to five days.

On the 21st of February, a short paper by SIR EVERARD HOME was read, containing some observations on the structure of the feet of some lacertæ, particularly the *gecko*. Sir Joseph Banks, who suffers nothing to escape his observation, noticed, while in Batavia, that the gecko is a very familiar inmate of the houses; and that it could run along their smooth ceilings, having its back downwards, with the greatest ease, contrary to the laws of gravity. He mentioned this circumstance to Sir Everard, and also supplied him with a large one weighing three ounces, in order that he might examine the structure of its feet. The result of his inquiry is, that the feet of the gecko have some resemblance to the *actinia* of those fish which adhere to the sides of ships; that they, at every step, form a partial vacuum below them, which thus enables them to run with their back downwards.

On this evening their Imperial Highnesses the Archdukes John and Lewis, of Austria, brothers of the Emperor of Austria, having been elected at a previous meeting, were regularly introduced as fellows of the Royal Society of London for improving natural knowledge.—*Philos. Mag.*

Medical Society of London, Bolt Court.—The anniversary of this Society was celebrated on the 8th of March, when the oration was spoken by Dr. CLUTTERBUCK. The orator began by teaching his hearers to expect a general view of the medical science, rather than an examination of any select article. In this they were not disappointed. After a very elegant and classical history of medicine
from

from its earliest date, including the great father of physic, with Celsus, Galen, and also the writers of the middle ages; the improvements under Sydenham, Stahl, Boerhaave, and others, were pointed out; and an impartial history given of the Cullenian school. The orator then adverted, with a due sense of respect, not however unmixed with the gravity of true irony, to the practitioners of the present day and their immediate predecessors. The merits of the two Hunters were fairly appreciated; but the division which John has introduced of the various morbid poisons formerly considered as different forms of the venereal disease, were hinted at with more scepticism than we expected. The subject readily introduced the too indiscriminate exhibition of mercury in all disorders, and the minute stercoraceous examinations which seem to render the physician if not ridiculous, at least as empirical as those who undertake to cure all diseases by examining the urine.

The oration was throughout interesting, perspicuous, and eloquent. It was received as might be expected by a medical audience, and an unanimous resolution passed requesting it to be printed.

The following gentlemen were returned officers and members of the council for the year ensuing, viz.—

President—J. Adams, M.D. F.L.S.

Vice-Presidents—W. Babington, M.D. F.R.S.; R. Temple, M.D.; W. Norris, Esq.; R. Saumarez, Esq.

Treasurer—J. Andree, Esq.

Librarian—J. Hancock, M.D.

Secretary for Foreign Correspondence—C. Taylor, M.D.

Registrar—T. J. Pettigrew, F.L.S.

Council—Drs. Walshman, Clutterbuck, Hamilton; Messrs. E. Leese, B. Atkinson, A. Mathias, J. Taunton, J. Sauer, T. J. Pettigrew, G. Damant, M. Bartlett, J. Harding, E. Sutcliffe, W. Edenborough, J. Stevenson, W. K. Griffith, E. Austin, W. Edwards, J. H. Hooper, J. Dunlap, J. Jones, J. Seaton, S. Sawrey, P. Heams, T. Wheelwright, K. Johnston, S. Griffith, T. Whateley, J. Beveridge, B. Brown.

The Royal Institute of France have published several ingenious chemical papers. We shall take a future opportunity of compressing the result of the whole in a manner more interesting, because less tedious, to our medical readers.

We have received from Newcastle, a Memorial on the Apothecaries' Bill, signed by most of the professional gentlemen of that part. The paper is useful, inasmuch as it contains whatever may be found objectionable in the bill. Most of these objections have indeed already appeared in a more scattered form, but this does not supersede the usefulness of the present work, which we earnestly recommend to the perusal of the faculty at a time when the Collège of Surgeons are negotiating a parliamentary charter. We are, however, obliged to add, that this memorial is tediously
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 prolix;

prolix; and, in some parts, appears to us not perfectly consistent with the dignity we should expect from so many truly respectable signatures. The title is also quaint, as a memorial is usually presented to some persons. This seems addressed to no one, not even to the public at large, excepting by presumption.

Observations on the Generation of the Guinea Worm; by GEORGE THOMAS HEATH, late Surgeon of his Majesty's Ship Psyche.—As it appears by Dr. Chisholm's paper on Guinea-worms, published in your last number, that the *mode* in which those animalculæ obtain admission in the human frame, is by no means clearly ascertained, I beg leave to submit the following facts, which may, perhaps, somewhat elucidate this obscure subject.

His Majesty's ship Psyche had been in Bombay dock and harbour during the first three months of the year 1808. In April she sailed from thence, and in three months afterwards, being then in the Persian gulf, two of the men were found affected by guinea-worms; others also complained at various intervals; and, in the course of a twelvemonth from quitting Bombay, eight men in the whole had them.

From this period (April 1809) to the end of the year, seventy-four persons were put on the sick-list with those worms, some of whom had them two, three, four, and even five times, the worms issuing, at different periods, from various parts of the trunk and limbs. The length of the worms varied from nine to forty-two inches. Not one of the officers was at any time affected by them.

The alarming prevalence of those worms, the very distressing effects and long confinement in many instances induced, excited considerable interest on board, and caused every inquiry to be made, in order to obtain information on a subject of such importance.

As officers and men had been equally on shore while the ship was in dock at Bombay, had drank of the *same water* there, and of the same stock taken to sea, we could not believe that the worms, or their embryos, were introduced through the medium of the water drunk. The only way in which we could account for their introduction and exclusive confinement to the seamen, was by supposing that the worms, in a minute or embryo state, penetrated the exposed skin of the men, who usually went about without any other coverings than a hat, a shirt, and trowsers; while the officers, who were properly clad, and generally wore boots or gaiters, were thus shielded against them.

The idea of contagion having been suggested, it may not be improper to add, that three drafts of recently impressed men, and a detachment of his Majesty's 56th regiment, were received on board while the worms were most prevalent, without any one of them receiving the disease; and I may add, that two of the Psyche's men were discharged in two other of his Majesty's ships, where they both had guinea-worms, without communicating the disease to any other person.—*Edin. Journ.*

On Safe-Lamps for Mines.—In the month of November last I had the pleasure to communicate to you the result of several successful experiments, made in the presence of the Literary and Philosophical Society here, with the safe-lamp invented by Mr. Stephenson, which, I am happy to add, has been since used in the most dangerous parts of some coal-mines without any accident having occurred. On Tuesday the 6th instant, Sir H. Davy's recently improved lamp, the flame of which is encompassed by wire-gauze, was also exhibited by a professional gentlemen who had previously tried it at Walls End and Hebburn collieries; and its merits appear to be still greater than those of Mr. Stephenson's. The lamp being suspended in a vessel of glass, open at the top, and the carburetted hydrogen admitted from below, the bright flame of the wick nearly disappeared, but the cylinder of wire-gauze was filled with a feeble but steady greenish light. On a greater volume of inflammable air being thrown in, the flame gradually died out. Results more satisfactory could not be expected nor wished for, particularly when we were assured that these accorded with numerous trials made in the most hazardous drifts of our coal-mines.

Notwithstanding all that has been lately said in some of the periodical publications, respecting the obstinacy of the viewers employed here, and the stupidity of their under-agents and pitmen, you may depend upon it that these safe-lamps are hailed by this class of people as a most fortunate discovery, which will soon be adopted by them in every mine infested with fire-damp. And, could a mode be struck out of preventing inflammation taking place by means of a furnace placed at the bottom of the upcast shaft, to accelerate the circulation of air through the workings, little would be wanting to render the occupation of the collier as safe at least as that of the persons employed in lead and copper mines.—

Your most obedient servant,

N.

Newcastle-upon-Tyne, Feb. 16, 1816.

[From the *Philosophical Magazine and Journal.*]

On a Method of making Ship Lanterns with Mica and Wire; by M. ROCHON.*—The great fragility of glass does not allow of its being employed in every sort of lantern, lamp, &c. In the navy it is necessary that the watch-lights, those of the powder-room, &c. should transmit the light through horn, or other substance capable of resisting great shocks. This material is at present sufficiently plentiful, and is very well manufactured, in France; but, as it fell short in the magazines at the beginning of the revolution, M. Rochon supplied its place for the ship-lanterns by a net-work of wire, of a large mesh, covered with a light coat of transparent isinglass. This artificial horn was at that time of great service in the navy.

* From the *Annales des Arts et Manufactures.*

The arrival of an American vessel, having on board several pieces of foliated mica, perfectly transparent, suggested to M. Rochon the idea of employing it in the place of glass or horn, in preference to isinglass and copal varnish. This mineral is found in abundance in the quarries of granite in the environs of Newport, in North America.—*Philos. Mag.*

On Nitrate of Silver as a Test of Arsenic.—An ingenious student at Guy's Hospital suggested to Dr. Marcet, that, when nitrate of silver is mixed with a solution containing an alkaline phosphate, a yellow precipitate is thrown down, similar in appearance to arseniate of silver. Hence an ambiguity in the mode of detecting arsenic in the liquid contained in the stomach, where an alkaline phosphate may very well be present. This fact induced Dr. Marcet to examine the subject anew. The shade of the two salts is not quite the same. Yet in juridical cases other tests may be requisite to be assured of the presence of arsenic. The addition of sulphate of copper and potash, and the formation of Scheele's green, affords a very satisfactory confirmation. But the best mode of proceeding is to mix the supposed arsenic of silver with a little potash and charcoal powder, and expose it to heat in a glass tube. A pellicle of metallic arsenic will be obtained on the inside of the tube, unless the quantity of arsenic present be very minute indeed.

St. Helena.—The late Dr. ROXBOROUGH, while at St. Helena, where he spent several months, drew up a flora of that island. He found in it fifty-six species, fifty of which were peculiar to the island, having been observed no where else. Not a single new genus occurred.

Rumford Prize.—The council of the Royal Society has voted the Rumford prize to Dr. WELLS, for his Essay on Dew.

Caterpillars in Switzerland.—A very singular phenomenon has lately taken place in Switzerland, at the distance of about nine miles from Lauzanne. The whole surface of the snow is covered with a species of caterpillar, different from any which are usually observed in that country. These animals appear dead; but, when brought near the fire, they soon recover animation.—*Annals of Philosophy.*

FOREIGN INTELLIGENCE.

Dr. VOGEL, in Glogau, has cured the epilepsy, without any relapse, by the application of the Succus expressus Galii Moluginis,

The same physician has cured insanity by the following remedy :
Aquæ Melissæ ℥iv. Extracti Angelicæ, Extracti Dulcamaræ āā ℥j.
Extracti Belladonæ gr. iv. Spiritus Nitri dulcis ℥ij.

Remaining weakness of memory, and of the power of judgment,
no. 206. u u were

were then removed by R. Spiriti Rutae ʒij. Balsami Peruvian ʒij. to be rubbed in on the spine early every morning.

Dr. KROSCK, in Greiffenberg, recommends the Liquor Stypticus Loffii, from eight to twelve drops, diluted in six ounces of water, to be given a table-spoonful every hour after an abortion, or in lochiæ after delivery. The preparation of this liquor is difficult; but its efficacy is quite equal to that difficulty.

In great sensibility of the feet, sand-baths prepared for them were found by Dr. PURLITZ of great service.

Dr. BUSSE, in Wohlau, cured an insanity, arising on the seventh day after delivery, by applying an ice-cap several times a day for six or eight minutes.

Dr. MULLER has cured a palsy of the Nervi optici, from the measles, by applying the Naphta phosphorata.

Dr. FRANK communicates divers observations made in Egypt upon the efficacy of the Acidum Sacchari crudi (Vinaigre de Sucre) against the scurvy. The French general-in-chief Menou ordered the raw sugar in store, for the distillation of spirits for the use of the army; but the fermentation succeeded very imperfectly, and only a very small quantity was obtained: however the residue began to ferment a second time, and turned sour. This Acidum Sacchari contained but a very small part of alcohol, and also a little acid, but a still greater quantity of saccharine parts; and, from its resemblance in taste to the mixture of wine, sugar, and succus aurantiorum, recommended by Dr. Lind in scorbutic cases, Dr. Frank prescribed it to the very numerous patients labouring under that disorder. Some, being in the very last stage of it, took eight ounces every day, which dose was afterwards increased. Divers patients, nearly on the point of death, were saved by the use of it; and, of 400 patients, only 18 died.

Dr. PURLITZ relates the following case of insanity, that took place five days after a palsy of the extremities, which had grown worse by applying evacuating remedies. He prescribed Tinctura Stramonii, prepared from four ounces of Spanish wine, half an ounce of alcohol, and one ounce of sem. stramonii; began with six drops twice a-day, which he afterwards raised to twenty-five drops. The remedy produced a sensible amendment, but not fully; and he was obliged to proceed to the Belladonna and Gratiola dissolved in Aqua Lauro-cerasi, according to Hufeland's method. Twenty-five drops were given three times a day of this mixture; and in about a fortnight the patient could be left without a guard. It is remarkable that the Tinct. Stramm. in this case produced salivation.

According to Dr. HOHNBAUM's observations, the poisonous effects of the arsenic is to be distinguished from the inflammation of the stomach by two phenomena, that never occur in the latter, viz. an involuntary evacuation of urine and stool. In cases of a genuinæ

genuine inflammation of the stomach, an obstruction of the bowels takes place; and an involuntary secretion of urine has never yet been observed in that complaint, on the contrary ischuria seems rather to take place. Both these symptoms, of course, sufficiently distinguish the forms of these two complaints.

Amongst the numerous forms of disease which, in the year 1815, appeared in the Vienna Hospital for sick children, receiving several thousands of patients, Dr. GOELIS, the Director, observed one most nearly approaching to the transudative inflammation of the membrana cavi cerebri, and their venes, yet still distinguishing itself so much from it, particularly by its rapid progress, that he thought it deserving of a particular inquiry. The most careful dissection of the first case convinced this diligent observer that this appearance originated in an inflammation of the membrane of the medulla spinalis, which complaint had hitherto been considered by pathologists as barely possible, but whose actual existence had been scarcely known by physicians. Dr. Goelis has distinguished it by the appropriate name of Spinaodorsitis.

Having observed the complaint seven times with unabated attention, he has thereby been enabled to delineate a faithful image of it; which, on account of the rarity of this important subject, and the perspicuity of the smallest indications, deserves our best thanks.

This complaint always appeared in the beginning with a considerable synocha, in most cases attended by general spasms in the extremities. From the first beginning of the fever, the posture of the patient was that of lying on his back, and a kind of tetanus contracted the muscles of the neck, back, and thighs, whereby the head was drawn backwards, the spine hollowed, and the legs pressed together, stiff and strained. The upper arms, by a similar spasm, were pressed close to the trunk, whilst the lower part moved automatically to the chin, mouth, or abdomen; and instantaneous convulsions, as if caused by electricity, shook the whole body. These motions gradually brought the patient down to the foot of the bed; meanwhile the marks of the most acute pain were imprinted on the high-red and burning-hot face, a pain which, on the least motion, particularly sideways, or on bending the feet upwards, or separating them, was expressed by pitiful cries. The patients of infant age enjoy but little sleep, delirium and sudden starts interrupting it. Children of larger growth, when awake, complain, with bitter cries, of a pain in their back, of an incapacity of moving their hands and feet, and the impossibility of turning themselves about.

The eye wanders about in every direction, the pupil much contracted, and more sensible; the nose dry, and the nostrils move on breathing, but the point always remains white, be the red colour of the face ever so high. The cavity of the mouth is red, the tongue moist, commonly covered with white; but even in the few cases of a clean tongue, the appetite ceases, though without a direct

aversion to food. The thirst is tormenting, and insatiable; and, though the patient vomit up whatever they have swallowed so greedily under the most violent pains, yet they eagerly grasp at more drink. They almost dissolve in sweat, whilst, on the other hand, urine is voided scarce once or twice in twenty-four hours, and in small quantity. Pre-eminently distinguished before all analogical sufferings of the brain, and its component parts, is the increased irritability of the *Tractus intestinorum*, as frequently the smallest doses of calomel produce a diarrhœa, which sometimes even takes place without it. Notwithstanding the increased irritability of the pupillæ, the eye discerns every object presented, and the patients grasp at it; but if the inflammation of the *medulla spinalis* mounts, and attacks the substance of the *cerebellum*, and the brain itself, a true palsy of the pupilla, and even of the retina, takes place. If, with these symptoms of inflammation, a cough is accidentally combined, the sufferings of the patient are terrible, as the spasmodic stiffness of the neck becomes an excruciating obstacle to the muscles co-operating in coughing.

These are, according to Dr. Goelis's observations, the most essential symptoms defining this dreadful disorder, dreadful, as, in the greatest number of cases, it proves mortal, under convulsions, and, for the most part, apoplexy, after eighteen, twenty-four, or thirty-six hours at farthest. Sometimes it assumes the form of *hydrops acutus cavi medullæ spinalis*, and brings on inevitable death in a fortnight. However Dr. Goelis's success in snatching four patients of this *Spinodorsitis* from imminent danger, and restoring them again to life, is very encouraging. The indication pointed to all the means of subduing local inflammation. For this purpose, after a previous venesection in general, where the constitution of the patient made it requisite, he caused leeches to be applied in the nape of the neck, and on both sides of the back bone in the regions of the back and loins; or applied cupping-glasses, and a vesicatory an inch in breadth, from the third and fourth *vertebræ colli* to the *os sacrum*. He prescribed diluting, emollient, and composing beverage, of the infusion of marsh mallow, salep roots, &c. luke-warm, and in considerable quantity, to restore the secretion of the urinary organs, and the excretions, to their proper form, with now and then a few table-spoonfuls of a *mixtura oleosa cum syrupo diacodii*. Regard was had to the evacuations by stools; and where these did not follow, the *calx mercurii*, and, amongst these, calomel, in the smallest doses, rendered the most essential services. With regard to diet and regimen, Dr. Goelis directed the temperature to be kept rather cool than warm: children of a larger growth were only now and then to take a little mucilaginous broth; sucking infants the breast of the mother or nurse, whose food was carefully adapted to the condition of the patient.

By pursuing this method, Dr. Goelis has cured four patients of this *Spinodorsitis*; but in all of them the symptoms of fever con-

tinued till the eight or nine days. With every mark of genuine inflammation, it had killed others before the end of the second day. In one case, where, by a real transudation of the lymph and serum, a hydrops acutis spinæ dorsi had taken place in the cavity of the columna vertebralis, the disease terminated fatally after the fourteenth day.

If Dr. Goelis fulfils his promise, this Spinodorsitis, the Hydrops acutus medullæ spinalis, the Hydrocephalus chronicus, and Hydrops chronicus columnæ vertebralis, will constitute the contents of the second volume of his Practical Treatises upon the principal Disorders of Childhood, to which he intends adding, Observations upon the Chronic Induration of the Cutis tensa. This last disease ought to give a higher value to his work, as, notwithstanding that its existence is no longer doubtful, it has been almost entirely passed over by authors, and is hardly known by name to many physicians. Dr. Goelis was the first that discovered its nature to be of syphilitic origin, and, with a bold hand, combated it as such, by which he had the great satisfaction of so much lessening its former mortality, that, according to his diary, and the testimony of eye-witnesses, scarce five out of forty fell a sacrifice to it. Whoever, therefore, takes delight in our art, and patronises infancy, for which the medical art has hitherto not sufficiently exerted itself, will eagerly look forward to a work containing the nearer traits of this singular disorder, and announcing means for its fundamental cure, which shows the ways by which Dr. Goelis succeeded in finding out its most powerful antidote, mercury. Previous to the appearance of this second volume, a small Collection of remarkable Cases of Diseases, their origin and cure, will go through the press.

The Norway Society of Sciences has proposed, for 1815, the following prize Question, for her large silver medal:—*Copiosa & dilucida historia pestiferi istius morbi vulgo atra mors dicti, eorum que malorum, quæ exinde ad Norwegiam redundarint.*

The prize Question proposed by the Copenhagen University, for 1814, was—*Catarohi explicatur theoria.*

Mr. LAURENCE, junior surgeon at St. Bartholomew's, is delivering, with great satisfaction to his hearers, a public Course of Lectures on Comparative Anatomy, at the College of Surgeons. His first, or introductory lecture, was an elegant historical epitome. In his second he entered very much at large on the unfounded theories concerning the vital principle, and showed the propriety of Mr. Hunter's doctrine, that we can only trace the actions of life, without expecting to arrive at its cause.

Dr. SQUIRE will, on Tuesday, April 2d, begin a Course of Lectures on the Principles and Practice of Midwifery, including the Diseases of Women and Children.

Dr.

Dr. ADAMS is preparing for the press, *Memoirs of the Life, Doctrines, and Opinions of the late JOHN HUNTER, founder of the Hunterian Museum, at the College of Surgeons in London.* These memoirs are carefully collected from authentic documents and anecdotes, and also from the writings, lectures, and conversations of the deceased.

Dr. PINCKARD has just published a new edition of his "Notes on the West Indies" (including observations relative to the Creoles and Slaves of the Western Colonies, and the Indians of South America; with remarks upon the Seasoning or Yellow Fever of Hot Climates): with additional Letters from Martinique, Jamaica, and St. Domingo; also, further remarks on the Yellow Fever, and a Plan for the Emancipation of the Slaves in the West Indies.

Dr. C. H. PARRY, of Bath, has just published an Inquiry into the Nature, Cause, and Varieties of the Arterial Pulse.

Dr. G. E. MALE, of Birmingham, has just published, an Epitome of Juridical or Forensic Medicine.

REPORT OF DISEASES.

THE vernal constitution of the atmosphere evinces itself more strongly than ever in the prevailing diseases. Inflammation, in every form and in every organ, is as prevalent as ever; and hæmorrhage very frequent. The former requires the most prompt assistance, and, if relieved by ordinary bleeding, the consequence is only a suspension of the complaint, which returns with increased violence. Much is gained, however, by the first bleeding, for, though insufficient to remove the inflammatory disposition, it arrests the fatal symptoms, and allows the patient a respite till a practitioner of a more decided character is consulted.

Hæmorrhages from the nose or anus have been very profuse; but the patients have soon recovered. They have, in some instances, occurred in internal parts after symptoms of high inflammation in the thorax or lower viscera. The patient and the physician have fancied a favourable termination of the business, finding nothing to contend with but what they consider *typhoid symptoms*. On a sudden the patient, apparently convalescent, has breathed his last. On examining the body, profuse hæmorrhage has been discovered in one or other of the cavities.

Scarlet-fever has been very common among the new arrivals,—chiefly the servants who, for the first time, have visited the metropolis. The small-pox is more frequent than it ought to be. In London vaccination gains in reputation. We have heard less of the measles for the last month.

METEOROLOGICAL REGISTER.

From February the 25th, to March the 26th, 1816.

Kept by C. BLUNT, Philosophical Instrument Maker, No. 38, Tavistock-Street, Covent-Garden.

Moon.	Day.	Wind.	Barometrical Pressure.			Temperature.			
			Max.	Min.	Mean.	Max.	Min.	Mean.	
☉	26	W	29.98	29.94	29.96	49	27	38.	Fair
☉	27	W	29.97	29.91	29.94	48	25	36.5	Fair
☉	28	NW	29.98	29.97	29.97	47	26	36.5	Fair
☉	29	N	29.98	29.97	29.97	47	26	36.5	Fair
☉	1	N	29.96	29.94	29.95	49	28	38.5	Fair
☉	2	SW	29.98	29.90	29.91	50	29	39.5	Fair
☉	3	SE	29.90	29.88	29.89	47	33	40.	Fair
☉	4	NW	29.86	29.80	29.83	48	27	37.5	Snow
☉	5	NW	29.71	29.48	29.59	48	33	40.5	Snow
☉	6	W	29.46	29.40	29.43	49	40	44.5	Fair
☉	7	SW	29.40	29.36	29.38	48	36	42.	Rain
☉	8	S	29.25	29.20	29.22	46	36	41.	Rain
☉	9	SE	29.26	29.14	29.20	47	38	42.5	Rain
☉	10	SW	29.39	29.29	29.34	49	36	42.5	Fair
☉	11	SW	29.70	29.40	29.55	51	38	44.5	Fair
☉	12	W	30.26	30.10	30.18	52	37	44.5	Rain
☉	13	SW	30.30	30.25	30.27	51	36	43.5	Fair
☉	14	W	30.60	30.40	30.50	52	34	43.	Rain
☉	15	W	29.80	29.70	29.75	52	34	43.	Rain
☉	16	NW	29.58	29.56	29.57	53	35	44.	Rain
☉	17	NW	29.62	29.60	29.60	54	36	45.	Rain
☉	18	NW	29.80	29.70	29.75	53	37	45.	Fair
☉	19	NW	29.95	29.90	29.93	51	38	44.5	Fair
☉	20	W	30.	30.	30.	51	38	44.5	Rain
☉	21	W	30.20	30.	30.10	50	37	43.5	Rain
☉	22	SW	30.26	30.24	30.25	50	36	43.	Fair
☉	23	SE	30.28	30.25	30.27	49	35	42.	Fair
☉	24	SE	30.24	30.19	30.21	50	34	42.	Cloudy
☉	25	E	30.20	30.17	30.18	49	35	42.	Fair
☉	26	SE	30.21	30.18	30.20	48	35	41.5	Fair

RESULTS.

Mean barometrical pressure of the month	29.86	Mean temperature of the month	41.7 deg.
Maximum 30.60, wind at	W	Maximum 54, wind at	NW
Minimum 29.14, wind at	SE	Minimum 25, wind at	W

Scale exhibiting the prevailing Winds during the Month.

N	NE	E	SE	S	SW	W	NW
2	0	1	5	1	6	8	7

	Mean barometrical pressure.	Mean temperature.
From the last quarter on the 20th Feb. to the new moon on the 28th	30.08	40.12
new moon on the 28th Feb. to the first quarter on the 7th March	29.74	39.87
first quarter on the 7th, to the full moon on the 13th	29.62	43.08
full moon on the 13th, to the last quarter on the 20th	29.87	44.14

MONTHLY

MONTHLY CATALOGUE OF MEDICAL BOOKS.

OBSERVATIONS, with Cases, illustrative of a new, simple, and expeditious Mode of Curing Rheumatisms and Sprains. By William Balfour, M.D.—Underwood.

An Experimental Inquiry into the Nature, Cause, and Varieties of the Arterial Pulse. By C. H. Parry, M.D. F.R.S. 8vo.—Underwood.

A Narrative of a Journey to London in 1814, or a Parallel of the English and French Surgery; preceded by some Observations on the London Hospitals. By P. J. Roux. 8vo.—Cox and Son.

Rudiments of the Anatomy and Physiology of the Human Body. By T. J. Armiger. 8vo.—Cox and Son.

Health, a Poem; shewing how to Procure, Preserve, and Restore it. To which is annexed; the Doctor's Decade. By E. Baynard, M.D. 12mo.

A Practical Treatise on the Diseases of the Foot of the Horse. By R. H. Budd, Veterinary Surgeon. 8vo.—Longman and Co.

The Anatomy and Physiology of the Human Body. By John and Charles Bell. The fourth edition, in 3 vols. 8vo.—Longman and Co.

An Essay on the Bots of Horses and other Animals. By Bracy Clarke, F.L.S. Veterinary Surgeon. 4to.—Callow.

Instructions to Parents on the Management of their Children. By John Way, Surgeon. 12mo.—Callow.

NOTICES TO CORRESPONDENTS.

We have been favoured with Communications from Drs. PEARSON, EDGELL, FISKE; R. N. STARR, Esq.; AN OLD CORRESPONDENT; &c. &c.

Our Correspondents will please to be particular in the Address of their Communications, which should be thus, "To the EDITORS of the LONDON MEDICAL AND PHYSICAL JOURNAL, at Mr. SOUTER'S, No. 1, Paternoster-Row; or at Mr. ADLARD'S, 23, Bartholomew-Close."

THE LONDON
Medical and Physical Journal.

5 OF VOL. XXXV.]

MAY, 1816.

[NO. 207.

“For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work to which the Faculty in EUROPE and AMERICA were under deeper obligations than to the Medical and Physical Journal of London, now forming a long, but an invaluable, series.”—RUSH.

For the London Medical and Physical Journal.

On the Pulvis Antimonialis of the London Pharmacopœia;
by GEORGE PEARSON, M.D. of George Street, Hanover Square.

ALTHOUGH I have not thought proper to take any part in the composition of the London Pharmacopœias, I should not, perhaps, be altogether justifiable in withholding a few remarks on the article *pulvis antimonialis*, in consequence of your reference to my analysis, published in the Philosophical Transactions of 1791. You, as editors too, are well entitled to attention for your judicious and able criticisms of the whole work; of which I hope, for the sake of humanity, the College will avail themselves in a future edition.

As you rightly observe, (Journal, Dec. 1815, p. 438,) “it seems very extraordinary conduct in the translator, to pass unnoticed the alteration in the prescription of the article in question, while he deems it important to fill a page with a quotation of the absurd deception from the records of Chancery;” thereby attaching importance, and showing respect, for what has long been considered by the public in general in the light you describe. Further, this procedure, if really one can find it at all reasonable, must arise from a belief that the specification contains the prescription for the *James’s powder*, as sold to the public for the last forty or fifty years; and as, according to the analysis which I have above mentioned, the former *pulvis antimonialis* and the *James’s powder* are identical, the inference must be, that the medical public ought not to confide any longer in the use of the Pharmacopœia prescriptions in place of the *nostrum*. If the translator thought proper to write his strictures on the point of the *James’s powder*, as stated in the specification,

surely the public had a right to expect that he should have given evidence against the evidence I have published, and which has been confirmed subsequently by Mr. Chenevix, that the two articles are identical, otherwise he has only opposed the specification, of the truth of which there is no proof, to the published proofs by other persons.

But, whether the two named substances be identical or not, as you justly remark, why has the translator left us in the dark as to the views of the Committee of the College, in reducing the proportion of the antimony to the bone shaving to one half? The present prescription of the *pulvis antimonialis*, has no authority but the committee; the former had not only testimonies that it was identical with James's powder, but also, as I have published in the Philosophical Transactions for 1791, it is the prescription of Schröder in 1640, or thereabouts, and also of Lile. There is much collateral evidence that Baron Schwanberg introduced this medicine into England, and that it was not his invention, having been published above sixty years before his time by Schröder. Hence, then, the medical public find an established medicine of great importance altered most materially in its composition without any assigned reason. Further, it is with much justice feared that many disappointments in practice have been experienced in the use of the new prescription, owing to the dose not being varied from that of the formula in the former editions of the Pharmacopœia.

March 20, 1816.

For the London Medical and Physical Journal.

Two very interesting Cases; by SAMUEL FISKE, M.D. of Saffron Walden, Essex.

CASE I.—Tuesday, October 24, 1815.—John Simmons, a labouring man in this neighbourhood, aged 40, applied to me for relief for a cold and hoarseness: he breathed and swallowed with difficulty, coughed but little, and was very hoarse. He suspected, that, about a month before, he had swallowed part of the neck-bone of a fowl, and had felt a pricking and uneasiness in his throat from that time. On examining the fauces I could perceive no appearance of bone, or any extraneous substance or laceration; the tonsils and uvula were in a natural state; and, as far as I could see down the pharynx, there was no visible inflammation: externally the neck and throat, particularly the upper and right side, appeared larger and harder than natural, but gave no pain on pressure, nor could any fluid be discovered

by the feel. From the peculiar noise, and difficulty in breathing and swallowing, I suspected inflammation of the larynx, and an effusion of coagulable lymph in the trachea and bronchia, or a formation of matter somewhere in the neighbouring parts. The symptoms bearing a strong analogy to the croup, a disorder which has lately proved fatal to many children here, a blister was applied to the throat, and a medicine given for his cough. The next day his breathing was much more difficult, and he could scarcely swallow; he was bled in the arm; a purge was ordered; and he was desired to inhale the steam of warm water. Thursday, a large blister was applied to the chest, and expectorating medicines given; he continued getting worse; said he felt the bone more in his throat; and died on Friday morning in great agony.

On examining the throat after death, a deep seated abscess was discovered on the upper and right side, between the larynx and pharynx, containing about four ounces of fetid pus, which, by its pressure, had nearly closed the larynx; the glottis and epiglottis were very much thickened and enlarged with an effusion of lymph; the inner membrane of the trachea was perfectly healthy, without any appearance of inflammation; the pharynx was very much thickened; and about an inch down the œsophagus was a stricture that would scarcely admit a goose quill; there was no appearance of inflammation or injury of the internal surface of the œsophagus, or any extraneous substance or spicula of bone to be discovered: the muscles of the throat covering the abscess were much thickened, and had a cartilaginous appearance.

Case II.—November 27th, 1815.—Sarah Cornel, 22 years age, near four months pregnant of her first child; a strong hearty woman, but heavy countenance, was attacked with erysipelas in the left arm, with slight fever, sickness, and costiveness; some brisk purges were given, and she was ordered to be kept warm; after three days a free evacuation from the bowels was procured; the erysipelas extended itself over the body and lower limbs; she gradually got better; and, at the end of seven days, was quite well. January 6, 1816, she complained of head-ache and dimness, with slight sickness, which continued all the 7th, (was uncertain whether she had quickened, but was supposed to be about five months advanced in her pregnancy); the 8th, in the morning, the sickness and dimness were much worse; and, at three in the afternoon, she was attacked with vomiting, blindness, and slight convulsions; she was put to bed, bled in the arm, and had hot flannels applied to the feet: it was

with much difficulty she swallowed any thing. In the evening the convulsions were stronger, and she was insensible: an anodyne dose was given. At three in the morning of the 9th she was worse: another anodyne was given. On laying the hand on the abdomen, no motion of the child could be perceived, but a very strong pulsation; she had no labour pains, nor signs of labour. An examination *per vaginam* was passed: the os uteri was in its natural situation, firmly closed, and the neck of the uterus not stretched;—no attempt, therefore, was made to deliver her. She could swallow nothing, and was constantly convulsed. At nine she was evidently dying, and continued in strong convulsions till eight in the evening, when she died undelivered.

March 8, 1816.

For the London Medical and Physical Journal.

Mr. R. N. STARR, in Reply to Dr. KINGLAKE, on the *Obstetric Practice.*

IN your Journal for this month, page 174, I was struck with the further remarks of Dr. Kinglake on the *Obstetric Practice*, which he so strongly opposes should be under the management of male practitioners, excepting but in preternatural cases, where he modestly allows a medical man may be consulted.

I am afraid the Doctor, when speaking of the too frequent interference of the accoucheur in cases of parturition, (which, I consider, is rather exaggerated,) did not remark the practice of the female midwife, who, I think he will find, are much more officious in the application of the *Tartus Eruditus* than the male practitioner. Dr. K. seems prejudiced against the practice of man-midwifery. I am afraid he has seen little of the practice of the female midwives, or probably he would not have formed those illiberal ideas with respect to the former. I have a better opinion of my medical brethren than to think few regular practitioners labour under the charge imputed against them by the Doctor. With regard to the female African and uncivilized American, are they not in a state of nature? and we are all aware, that the increase of luxury debilitates the human constitution. If we look at the brute creation, we shall find, as they become domesticated, the females consequently suffer more during parturition, than when in a state of nature. This, I consider, is in consequence of artificial feeding, and confinement. We shall find that the females in tropical climates suffer less during

during the parturient state than those in more northern regions: this may probably happen from a greater laxity of habit, together with abstemious living, for we shall find that animal food is little used amongst them, or even any other luxury. With due deference to the professional abilities of Dr. K., I should recommend him to study the old proverb—*Sit verbum sapienti.*

Barnsley;
March, 1816.

For the London Medical and Physical Journal.

On the free Use of Opium in Colic; by an OLD CORRESPONDENT.

PERMIT me, through the medium of your valuable miscellany, to offer a few remarks on the advantages resulting from the FREE use of Opium in Colic. It having fallen to my lot to witness several cases of this description, I can speak with the greatest confidence on the good effects of this practice. Many practitioners are timid in this respect, from a fear lest the effects of the opium should increase the constipation, which always constitutes such an alarming feature of this disease; but, when it is considered that the source of this painful disorder is *a spasmodic constriction of the intestinal canal*, the propriety of persisting in the use of such remedies as are calculated to relax the spasm (of which the warm-bath and the internal exhibition of opium are the principal) will readily appear. I can venture to say, from confirmed experience on this subject, that it is perfectly fruitless to attempt to overcome the constipation by cathartics (which seem rather to increase the disposition to inflammation), until the spasmodic stricture is previously taken off by remedies suited to that intention. Wherever, therefore, the disease is correctly ascertained to depend on this cause, I would advise that opium should be given *to any extent that may be necessary.* I have known three grains given three or four times in an hour, in very urgent cases, with great advantage, until the spasm is overcome, which will be known by the cessation of pain, when it is always proper to exhibit a purge—and one of very moderate strength will, in this state, generally answer the purpose.

March 13, 1816.

For

For the London Medical and Physical Journal.

On the Obstetric Practice; by RICHARD EDGELL, M.D.
of Bristol.

I WAS much astonished at reading, in your Number for March, in Dr. Kinglake's reply to Messrs. Wayte and Atkinson on Obstetric Practice, some observations which appear to me to have been made under a misconception of the subject. I have been some years engaged in extensive *man*-midwifery practice, and may, therefore, be permitted to hazard an opinion on the practical accuracy of Dr. Kinglake's deductions. With the general controversy I have nothing to do—my object is to attempt to show that Dr. K. has been misinformed.

1st.—With regard to the placental presentation;—Dr. Kinglake says, “if my information be correct, it is not risking too much to say, that there is not more than one practitioner in a thousand, in any age, in any country, that has ever met with an instance of it.”—In contradiction to this I have to observe, that our most eminent writers on midwifery mention it as not of unfrequent occurrence; and I would particularly call his attention to a most useful practical work in corroboration of my assertion, namely, Rigby on Uterine Hæmorrhage; in addition to which, I beg to state, that attachment of the placenta to the os uteri has not been unfrequent in Bristol. It has happened to myself, and to every extensive practitioner in midwifery with whom I have had any conversation on the subject; and instances of death by flooding from placental presentation have come to my knowledge, where the unhappy patient has been under the direction of ignorant or unskilful practitioners. I believe it was an aphorism of the late Dr. Clarke, that no woman should die of hæmorrhage if the accoucheur be called early, and certainly my observation as yet induces me to form the same conclusion. Dr. Kinglake's supposition that a case of placental presentation, if left to Nature, would do well, and that the uterine contraction that would detach the placenta would also advance the head of the fœtus sufficiently to restrain the hæmorrhage by its pressure, is worthy of refutation, as it may otherwise be acted upon by some inexperienced practitioner, which would, in most cases, cause the death of the patient. The Doctor does not appear to have given his practical conclusions that degree of attention they demand; for he has evidently mistaken *dilatation* for *contraction*, as it is by the dilatation of the os uteri that the placenta becomes detached, and the most dangerous cases of flooding

flooding are those in which no contraction at all takes place. The membranes containing the waters would in most cases prevent the head of the fœtus advancing, or the uterus from contracting sufficiently to restrain the hæmorrhage; and he will find, by the facts stated by Mr. Rigby, which stand uncontroverted, that hæmorrhages occasioned by a partial separation of the placenta, by other causes than attachment to the os uteri, will even require the rupture of the membranes to cause the contraction of the uterus sufficient for putting a stop to the hæmorrhage by its pressure on the body of the infant.

2dly.—With respect to giving assistance in cases of rigid os uteri. Here the Doctor has not been sparing of hard words; but declamation will not bear down facts. It is well known that cases of severe and protracted labour have been expedited or relieved by “*intermeddling*” with the lancet or catheter; and where there is the probability of preventing a patient from suffering several hours of torment, or even death, from rupture of the uterus or bladder, such intermeddling should not be designated “*mischievous or useless,*” &c.

3dly.—In severe cases of hæmorrhage after delivery, the Doctor asserts, “no stimulant medicines would be admissible, no manual aid could be usefully offered.” As a general rule, I believe he is right; but I beg leave to assure him I have been concerned in cases where I am of opinion that, if I had not, by the local application of cold, or even the introduction of the hand, and in others by the constant exhibition of “stimulant medicines,” restrained the flooding, I should have lost my patients.

4thly.—In reply to Mr. Atkinson, Dr. Kinglake puts a stop, as he thinks, to all further discussion, by the following extraordinary assertions:—“*It has been ascertained, to an extent that sets all question at rest on the subject, that medical practitioners in full midwifery employ during upwards of thirty years have never met with an unnatural presentation, have never had an occasion for using an instrument, and have always found the natural efforts equal to all the exigencies of salutary parturition.*” But these thirty-year gentlemen have not condescended to tell us how many of their patients died undelivered. I remember well that a Somersetshire practitioner, in answer to a general observation that no woman should die undelivered, said, “that is very pretty indeed, but how can we help it? I have had many women die undelivered.”

Believe me, gentlemen, I have no unworthy motive for this

this communication: it is hastily elicited by a perusal of Dr. Kinglake's paper, which, coming from respectable authority, if suffered to go unanswered, may be the cause of much mischief.

March, 1816.

For the London Medical and Physical Journal.

On Cutting off the Tails of Leeches; by S. M.

THE practice of cutting off the tails of leeches, to promote an increased flow of blood, is by no means novel. It has been familiar to me since I was a very tyro in medical studies, from the perusal of "Heister's Surgery," which was first published in 1739: he says, "if it be necessary to draw a large quantity of blood, you must cut off the tails of those which are drawing with a pair of scissars, by which means the blood will run through them, and they will draw almost as long as you please."

But this practice is to be traced much farther back. Tiberio Malsi, who published at Naples, in 1629, in folio, his "Nuova Prattica della Decoratoria Manuale, et della Sagnia; l'una a Barbieri, et l'altra a Chirurgici singolarmente necessaria, &c." mentions the same mode of managing leeches, and speaks of it as an old custom, for he says, "the ancients used a kind of pincers for this purpose, which to me does not appear very proper, the same thing being effected more easily by a pair of scissars." The whole paragraph runs thus:—"Ma perche questo modo di far' uscire il sangue, reca al paziente tal'ora molto travaglio per lo lungo tempo, che occorre stare sedente a cotal guisa; e tal volta anco si ritrovano le farze de gl'infermi assai deboli, et diminute, perciò hò stimato quì altri modi annotare, per li quali senza tanto travaglio, l'uscita libera del sangue haver si possa. Et il primo si è, che stando le sanguisughe succhiando, lor si dia una forficata per lungo nell'estremo della coda, se bene con destrezza, acciò nel succhiar loro il sangue goccioli in un vasetto a ciò pressarato. Gli Antichi per quest'effetto si valevano d'una certa tenagliuola; il che a me non pare motto a proposito, potendosi haver l'intento a più facilmente, con le forbici."—Lib. terzo. p. 146.

Half-Moon-street;

April 2, 1816.

For the London Medical and Physical Journal.

Remarks on the Treatment of the Typhoid State of Fever;
by DAVID HOSACK, M.D. Professor of the Theory and
Practice of Physic and Clinical Medicine in the University
of the State of New-York.

FROM the time of Hippocrates to the present day, the subject of fever, more than any other disease to which the human frame is liable, has received the attention of physicians. Yet, looking into our obituaries, we find that fever and febrile diseases still constitute the great outlets to human life, and are at this day almost as fatal as they were in the time of Sydenham, who calculated that fevers, properly so called, make up nearly two-thirds of the diseases which prove fatal to mankind; and that eight out of nine of all who die are cut off by febrile complaints. However minutely, therefore, we may be acquainted with the symptoms of fever in its various forms and stages; however extensive may be our knowledge of its predisposing and exciting causes, we certainly are very deficient in our acquaintance with the *proximate* cause of fever, or its treatment would be more distinctly defined in its various stages, than it appears to be in any of the great practical works that have fallen under our notice. Whence, then, has arisen the variant, and, we may almost say, the *empirical* practice, that fills the pages of the best writers on fevers, and that are even to be found in the truly valuable works of Boerhaave, Cullen, Wilson, Fordyce, and others? We answer—it is, in a great degree, ascribable to the local views to which some of those writers have been limited by their own hypotheses, and by which others have been subsequently enslaved.

Boerhaave's exclusive attention to the *humoral pathology* gave him necessarily but a limited and partial view of the nature of fever, and its operations upon the various parts of the animal economy; he, consequently, neglected all those indications in the treatment, that a more extensive view of the *nervous system*, as taken by Hoffman and Cullen, would have pointed out. But his successor, Cullen, on the other hand, by avoiding Scylla, ran into Charybdis. The nervous system, according to his view, had been too much neglected; but, in restoring it to its merited notice, he again, in a great degree, lost sight of all the other parts of the human frame,* pronouncing the *humoral pathology* in particular a creation of the imagination, and in its application to practice altogether hypothetical.

See preface to his First Lines.

The still more recent writings of Brown, Beddoes, Darwin, Girtanner, Clutterbuck, Rush, and others, have been too successful in spreading these partial views of the human structure, and, consequently, limited pathology of the diseases to which it is liable. Even the learned and elaborate work of Wilson is calculated to diffuse the same erroneous doctrines; nor is the more independent and philosophical Fordyce altogether exempt from this charge, although he professes to be totally guided by facts, regardless of hypotheses. Fever, in the opinion of the writer of these remarks, is a disease of the whole system; it appears no less in all the faculties of the mind than in all the functions of the body; it shows itself in every organ of our frame, and affects every nerve and fibre of our system; the absorbing, the circulating, and excreting systems of vessels, are all affected by it; it shows itself in all the various fluids of the body as well as in the solids: in a word, it is omnipresent; it has no one pathognomonic symptom, but is constituted by a concurrence of symptoms, and these variously combined in the various forms that fever assumes, depending upon the causes from whence it proceeds, and the condition of body in which it occurs. If this view of the subject be correct, it will necessarily lead the physician to more extensive principles of practice; it will lead him, at the bed-side of the patient, to pay due regard to the nervous system, and the phenomena it exhibits, and the indications thence arising; but at the same time it will lead him to notice the changes which may be induced in the secretions and excretions, and the circulating mass from whence they proceed. We offer these remarks for the purpose of calling the attention of the reader to the too long neglected pathology of the fluids;* at the same time that we invite the attention of the practitioner to some points of practice, not, in our opinion, sufficiently attended to in the treatment of fevers, and which the successful treatment of some recent cases of typhus fever have enabled us still further to confirm. It is proper here to remark, that, when speaking of fevers, we have in view the continued type of fevers properly so called, not referring to the phlegmasiæ or other pyrexious diseases; yet, in many instances, the principles we wish to inculcate, and the practical deductions thence arising, will be no less applicable in the *typhoid* state of many of the phlegmasiæ, and other fe-

* See Dyckman on the Pathology of the Fluids, and the review of the same Dissertation in the Amer. Med. and Phil. Reg. vol. 4.

febrile diseases, than they are to the advanced stage of typhus fever itself.

It will be acknowledged that fever cannot long continue without inducing debility in the heart and arteries, in common with all the other parts of the system, and that the sensibility to impressions must be proportionally increased. They are, consequently, predisposed to be more readily acted upon even by the natural stimuli of the system; the heart and vessels are accordingly excited to preternatural frequency, even operated upon by the blood and other fluids of the system in their natural and healthy condition, as we see daily illustrated in the progress of all fevers, and in convalescence from fever: We contend that fever, long continued, not only wastes the power of the solids, rendering them more irritable, but by the derangement in the functions and excretions, perhaps by the action of the blood-vessels themselves upon their contents, and especially by the retention of those materials which should have been thrown out of the system as noxious, which in health are constantly ejected, the circulating fluids become changed and vitiated, and thereby become additional sources of irritation to the heart and arteries, whose susceptibility of impression, as we have just observed, is also morbidly increased. From this view of the more irritable state of the circulating system, and the vitiated condition of the fluids, we infer, that unless by some salutary power inherent in the system itself, or by some means suggested by art, the greater irritability of the whole system, and of the heart and arteries in particular, be diminished, or the morbid changes induced in the fluids they circulate be counteracted, these causes of fever, mutually operating upon each other, must increase, and fever be continued until the vital principle itself be totally expended. How far, then, we ask, is the attention of physicians directed to these two cardinal objects, in the treatment of the advanced stage of fevers? how far is their practice calculated either to impart vigour to the system, and thereby to lessen the morbid sensibility of the nervous and moving fibre, or to counteract the septic tendency of the circulating fluids, which obtains in most fevers of the continued type?

Are we not hereby led to condemn that indiscriminate and long-continued use of the *debilitating evacuants*, usually prescribed at this advanced period of fevers and febrile diseases, in as far as they are calculated to add to that waste of excitement, and that very vitiation, to which we have referred? Is not the abstinence, too, usually enjoined by physicians in the typhoid stage of fever, for the same reasons, no less to be reprobated? Are we not led, upon the same principle,

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principle, to condemn the prescription of *camphor, musk, opium, digitalis*, and other powerful sedatives, so frequently directed in this stage of fever? We refer to the ordinary mode and quantity in which these narcotics are administered in fevers by the greater part of practitioners; and who, forsooth, by a strange misnomer, denominate them *stimulants!**

The indiscriminate practice of *purging*, as advised in typhus fevers by Dr. Hamilton,† of Edinburgh, is, in our opinion, no less dangerous by the debility it induces, and is not prescribed with sufficient caution by that distinguished practitioner, for whose opinions and practice, on most occasions, we entertain, and beg leave to express, our highest respect. Even the long-continued exhibition of the various preparations of mercury and antimony, is, in the opinion of the writer, a no less dangerous and fatal practice in this advanced stage of fever. On the contrary, if the views we have taken be correct, after the indications which arise in the first stage of continued fevers have been fulfilled, in the means of accomplishing which most physicians are agreed; after the necessary evacuations by the lancet and other depleting means have been made, which are frequently called for, both in the invasion and in the progress of fever; after the stomach and bowels have been cleansed, and due attention has been given to the no less important function performed by the skin, our attention should next be given to the two following objects, and which the practitioner should never lose sight of when the typhoid state of fever has actually arrived: 1st. To preserve the natural powers of the system, and carefully to guard against every further waste of excitement; 2d. By suitable antiseptic nourishment, and other means, including external as well as internal applications, to preserve the circulating fluids from those morbid changes to which they constantly and rapidly tend in all fevers of the continued type, especially in those arising from *contagion*, which, in a peculiar manner, depresses and exhausts the vital powers. In this advanced or typhoid state of fever, characterized by a disturbed state of the brain and nervous system, showing itself in delirium, watchfulness, or irregular and interrupted sleep, frequent sighing and *subcultur tendinum*; attended with an increased but feeble circulation, hurried and irregular respiration, with its usual

* For the evidence of the sedative effects of opium, see Dr. Bard's Inaugural Dissertation, Edinburgh, 1765; also Dr. Monroe's Experiments on Opium.

† See his valuable work on the Use of Purgatives.

consequences,

consequences, an increased heat of the body and dryness of the surface; characterized, also, by a deranged state of the secretions and excretions, exhibiting themselves in an offensive breath, turbid urine, frothy and offensive discharges from the bowels, a foul sordes about the teeth and gums, discoloured lips, and a brown or a black state of the tongue; and, perhaps, added to these, a cadaverous and offensive smell of the whole body: in this condition of the system, the means of fulfilling the indications before mentioned are, 1st, to supply the patient with the most powerful stimuli, both diffusible and permanent, viz. the volatile alkali, æther, wine,* wine-whey, porter, yeast, bark,† Virginia snake-root, bitters, and the mineral acids, preferring each or either of these according to the peculiar circumstances of the case. We are aware that this practice is reprobated by many physicians as improper in this state of excitement, whatever may be the stage of the disease, or the circumstances that may have induced it. This leads us to observe that many physicians are not sufficiently attentive to discriminate between the *simple excitement* of the early stages of fever, which is characterized by the symptoms of inflammatory action, and is kept up by considerable vigour of the system; and the *complicated excitement*, which appears when the powers of life are greatly exhausted, and the disease has been long protracted. A corresponding want of discrimination appears in their practice; they, therefore, condemn, in the *last* stage, those means of excitement which are injurious in the *first*; and they approve, in the last, the continuance of the same depleting and debilitating means that have been found useful in the first: what! say they, administer *wine, bitters, or bark* in this quickened circulation, attended with a hot and dry skin? We answer, that, in such typhoid state of body, in this exhausted state of the vital powers, the remedies that have been enumerated are among the most effectual means of reducing that very heat of skin, and of diminishing that increased excitement of the whole system, which, as we have before remarked, are frequently both ascribable to the morbid sensibility of the heart and vessels to their vitiated contents; and that this sensibility being counteracted, the circulation is necessarily reduced in frequency, the respiration becomes less hurried, and that the heat of the system, which

* The reader will find some pertinent practical remarks on the quantity of wine which may be safely and advantageously administered in this stage and character of fever, in Moore's *Med. Sketches*, p. 13, 517, &c.

† See Moore's *Med. Sketches*, p. 509.

is ever in proportion to the circulation and rapidity of respiration is, consequently, diminished.

But, 2dly, We should be no less attentive to the state of the fluids than we are to counteract the morbid excitement of the solids: with this view, attention should be daily given to the bowels for the purpose of evacuating their offensive contents, especially of the lower tract of the intestinal canal; for, these malcontents being retained, not only in some instances become the source of irritation to the intestines themselves, producing diarrhœa, but, by their reabsorption into the mass of circulating fluids, which are thereby rendered still more malignant, they necessarily constitute fresh sources of febrile excitement. Evacuations from the bowels, however, are not to be obtained at that expense of the powers of the whole system, which the means recommended by Dr. Hamilton are calculated to produce; on the contrary, at this advanced period of fever, we should just as readily think of putting a lancet into the patient's arm, as emptying his bowels by the active purges he has directed: these, too, we suppose to have been already administered in the first stages of the disease. Enemata, or, at most, the occasional use of small doses of rhubarb and magnesiâ, or some other mild cathartic, are only, in our opinion, admissible at this period of the disease. For the united purposes of preserving the surface in a perspirable state, of diminishing its temperature when excessive, and of removing the offensive materials which are excreted by the skin, and constantly accumulated upon it, the body should be regularly cleansed once or twice in the day, by ablutions of vinegar and water, which should be applied, either tepid or cold, according to the temperature of the body;* and should the skin remain dry, after such ablutions have been made, fomentations of vinegar and water applied to the extremities, and steadily persisted in, are among the most effectual means of relaxing the surface, at the same time that they are calculated to allay much of that distressing restlessness which attends this stage of the disease. Upon the same principle of correcting the state of the fluids, the nourishments directed should be exclusively of the *vegetable* kind, as best calculated to resist that putrescent tendency which manifests itself in this state of body: for this purpose, *arrow-root, sago, tapioca, Indian or oatmeal gruel*, rendered palatable by the plentiful addition of wine, and some of the most grateful aromatics, should be hourly administered in this exhausted state of the system. The bedding

* See Currie and Jackson on Cold Bathing in Fevers.

and the dress of the patient, especially if he wear flannel next the skin, which is the preferable clothing in this form of fever, should also be frequently renewed. For the purpose of controlling that restlessness which usually appears in the evening exacerbation, and of procuring sleep, *an occasional anodyne* may, in many instances, be administered with the most beneficial effects; but the indiscriminate use of opium or laudanum, throughout the day, and through the whole progress of the fever, with the view to their supposed stimulant effects, cannot be too severely reprobated; nor have we ever witnessed the stimulant effects ascribed to the fashionable *camphorated julep*, and other preparations of that medicine so often had recourse to; but we can indeed say, that we have, in very many instances, witnessed its debilitating, and, as we believe, its fatal effects, in the typhoid state of fever. Such is the practice the author of these remarks has pursued for many years past in the typhus fever of this city, the typhoid stage of scarlatina, peripneumonia typhoides, and in other febrile diseases; and he can bear the most unequivocal testimony in favour of its safety and success.

For the London Medical and Physical Journal.

Remarks on Dr. Kinglake's Opinions concerning the Obstetric Art; by JOHN WAYTE, Esq. of Calne.

YOUR Journal for March, through some mistake in the bookseller's agent, has been detained, and is now arrived with that for April. Dr. Kinglake appears firmly wedded to his own opinions on obstetric practice, and has replied at great length to Mr. Atkinson and myself; and, although our views and reasonings upon the subject have had no influence whatever, I should suppose that Dr. Merriman's reply will carry complete conviction. Most probably (but for the above-mentioned delay) Dr. Kinglake would have received a few lines from me earlier, for, in justice to myself and the profession, I could not have abandoned the cause, until convinced of the soundness and superiority of his proposition. Dr. Merriman has observed that his first letter might have been consigned to oblivion without comment;—but to sit tacitly and read such undeserved revilings against the art, and unhandsome reproaches against its practitioners, was more than my feelings could allow. The cause has been so ably advocated by other hands, I need not trespass much upon your pages.

In the second paragraph of Dr. Kinglake's reply, he
1
makes

makes me "gravely affirm that Nature's provision for parturition is too insufficient to be safely left to its own resources," and appears to him to be "far-fetched:" I say it is very far-fetched; but it is the Doctor's own fetching, as I never affirmed Nature's insufficiency *in toto*, nor proclaimed her all-sufficiency. My expression was—"without the least irreverence, or without detracting from the powers and perfections of Nature, I do suppose and know that she is inadequate to accomplish *every* requisite at *all* times, respecting the birth of the human species:"—had, then, the word *occasional* been added to *insufficiency*, my meaning would not have been perverted. In the latter part of the same paragraph there is some obscurity of language (at least far from sound reasoning) when he says "The accidental insufficiencies of Nature are not her original handy-work: they are, in *every* instance, morbid deviations from the primitive perfection under which she invariably appears." Can he believe primitive perfection invariable, whilst so many unfortunate *lusus naturæ* are seen? or, when calling all deviating insufficiencies morbid, does he mean to compare a distorted pelvis from ruchitis, which is morbid, with an arm-presentation, which is not morbid? Yet, each proves Nature's insufficiency during parturition. It is admitted, likewise, that "Nature's works are equal to all their ends; and that it is with the deviations from the natural standard of perfection that the hand of art has to do." Now, how shall we find that exactly possible? to call Nature unerring, and equal to all their ends, yet with deviations, and requiring the hand of art;—thus establishing as a corollary that Nature, in so deviating, always requires watching, and occasionally assistance. If my argument, gentlemen, evinces any misconception of the structure of those sentences, I remain open to your correction.

In the ensuing paragraph, where attempts are made to refute my argument with respect to placental presentations, I am astonished at the different epithets given to Nature, which, after being so much extolled as to be "universally perfect," and her works equal to all their ends, is now not only termed deviating (properly), but suffering "an inversion," taking a "topsy-turvy course not reasonably to be calculated on," and, I hope, after this concession, not infallibly depended on. I will not call the correctness of that information in question, respecting the proportionate number of practitioners that have met with this species of presentation, although it does not coincide with another statement: I will, however, mention, that there are only four practitioners in this town, yet each has met the case, and two

two of them several times. To myself (who have been in practice five years) it has occurred; and, as "it is not clear that a placental presentation, unrelieved and unperforated for the manual delivery of the fœtus, would terminate in death," I will, with all deference, submit it to Dr. Kinglake's perusal. I was sent for in great haste to attend a woman, at the distance of three miles, in labour with her first child, whom I found on the bed flooded to an alarming degree. Her mother informed me that it commenced about an hour prior to my arrival, together with very trifling pains. I apprehended it to be a placenta case, which, on examination, was not ill-founded. Clear as to its nature and danger, satisfied also of the steps necessary to be taken, I informed her relations of every circumstance as to treatment and probable result. The os uteri was not dilated more than to the extent of half-a-crown; the placenta plainly to be felt; and the flow of blood continual. Prior to any hasty determination on perforating its body, I passed a portion of my finger round within the os uteri, in order to ascertain whether its thin edge was within reach, so that the membranes might be broken. Fortunately I found it towards the os pubis, and immediately ruptured them. Hæmorrhage diminished, and the pains grew somewhat stronger. The presentation was natural; but, from the circumstances of its being a first labour, an undilated os uteri, with great prostration of strength, (her pulse being scarcely perceptible at the elbow) I could not allow delivery to be natural, or else death would have come natural. And now I will make an appeal to the whole medical public, to say whether I was not warranted in gradually dilating the parts, and effecting delivery by the feet? or whether the uterine contraction, after Dr. Kinglake's mode of reasoning, would have been preferable? My patient, I am happy to add, recovered with an opiate draught.

Once more I must assert the occasional necessity (it matters not how seldom) of assisting the dilatation of a rigid os uteri, on these grounds:—The membranes, with their fluid contents in due quantity, are known to be the natural, most easy, and effectual means of dilating the soft passages, preparatory to expulsion, by being gradually protruded and collecting exteriorly to the os uteri. It is well known that cases are occasionally offering themselves where the quantity of waters is very small (not exceeding one table-spoonful), the os uteri very unyielding throughout forty-eight hours' regular pains, causing the powers of nature to flag, indicating much distress in accomplishing her ends, and plainly asking for proper co-operation from art. Not,

therefore, until undue interference is made evident, and the practice indiscriminately followed, can the terms "intermeddling or mischievous" become applicable.

Neither, until some further light is thrown upon the subject, shall I cease to render proper aid in face presentations, which are now (for the first time) ranked among "slight deviations from the right line of exclusion," and "rather the momentary effects of the contractile action on the presenting part, than a stationary position." From which reasoning one would be led to suppose that face cases were never laborious, never required instrumental aid; but that they would as readily become favourable by the same "contractile action" as made them unfavourable.

Profuse uterine hæmorrhage, which, with convulsions, have been usually deemed the most dangerous occurrences in midwifery, seems to excite no great apprehensions of alarm in Dr. Kinglake's mind, as he would fain have us leave such "afflicting occurrences" to Nature and syncope,—not recollecting that fatal syncope has been known to occur from this cause. Entertaining these notions, only suppose the case that your patient happened to die whilst you were seated before the fire instead of at her bed-side, and you were questioned as to the treatment pursued;—the reply must be that you advised a "low temperature and the recumbent posture." Both undeniably proper. But did you not assist Nature before so much blood was lost as to cause syncope, by firm pressure on the uterus, particularly at its lower part, in order to promote its contraction? Did you not administer that well known auxiliary a large dose of tinctura opii. And, if the symptom continued, did you not apply cold wetted cloths to the abdomen, and keep up a regular pressure until all danger was over? No. Then you certainly omitted measures calculated to ensure success, and secure your own reputation.

All I deem requisite to remark on my term *necessity* is to inform Dr. Kinglake "what sort" it is which caused midwifery to pass from the hands of women into those of men. Had midwives but possessed complete information in their calling, so as to have been found competent upon all occasions, and not shown the reverse by committing so many grand and irretrievable mistakes, there would have been no change, nor any *necessity* for it; but their ignorance becoming so palpable, created a *necessity* for better-informed practitioners, into a preference for whom females would not have been "cajoled" but for their known superiority in so important a concern.

With respect to the proportionate occurrences of preter-natural

natural presentations, untoward labours, and the comparative successes of male and female practitioners, I shall advise a reference to the clear data of Dr. Merriman, for which I have to express myself under an obligation; and conclude this epistle with a few remarks on those unfounded charges against the whole body of male practitioners.

Dr. Kinglake says, that "were the ordinary practice of midwifery to be confined to women, much less would be heard of *preternatural* labours, *laborious* and *inefficient* efforts for natural parturition, and of resorting to manual and *instrumental* aid. Undisturbed nature would then proceed slowly, safely, and efficiently." "No *violence* would have been in any way added," &c. &c. &c. throughout the paragraph. Can such calumnious language be uttered decently by any man, much more by a searcher after philosophical truths? or can one sit stoically and read strong insinuations thrown out against gentlemen of creating preternatural labours; of increasing the sufferings of a fellow-creature, and the weaker sex, by adding "violence" to pain; and thereby dealing out misery, "disease," "mutilation," and "deformity"? But this is not the worst: he has really asserted that "the skilful, the instrumental accoucheur" has ("when no symptoms of imminent danger on the part of the mother have arisen") "bored the foetal head," and taken away the life of a child unnecessarily!! That a person of Dr. Kinglake's acknowledged ability and eminent station should have advocated the cause he has, and especially with so much apparent rancour, must be a source of regret to scientific men, as it will most assuredly draw down censure and disgust from the whole medical world.

April 13th, 1816.

For the London Medical and Physical Journal.

Dr. KINGLAKE on *Obstetric Practice*, in *Reply to Dr. Merriman.*

YOUR correspondent, Dr. Merriman, has reserved his comments on my observations on obstetric practice until he imagined that he could wield them with *pedagogal* severity. He has kept aloof until he fancied he could combat my opinion with all the crushing authority of an *introductory lecture* on the indispensable necessity of man-midwifery practice. Many of his pupils will probably recognize, if not word for word, quotation for quotation, at least the general form and import of that gentleman's solemn commendation of his favourite occupation, in the philippic

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with which he has thought proper to asperse my observations on a subject of momentous importance to humanity.

It is Dr. Merriman's province, as it appears to be his darling fort, to espouse whatever habit and adoption have authorised in the practice of man-midwifery. He has cited, adduced, and calculated on points that have never been disputed by me. That placental and various other presentations actually occur, and that these cases require scientific aid, no one has ever doubted. My objection is founded on such presentations being unnatural, and that things so circumstanced are not likely to be often happening. My principle rests on the general sufficiency of nature, in utter defiance of all the speculations, and what appear to me to be the gratuitous conclusions of art. Dr. Merriman, reversing the *literal* import of his *name*, affects to be *gloomy*, even to abhorrence, at some of my expressions. He says, they are not "gentlemanly," and that they even "charge wilful murder!" Now this imputation is neither *merry*, nor light, nor defensible. It evinces an irascibility, a "splenetic effusion," to adopt the doctor's own phrase, at any thing savouring of intrusion into a province of medical reasoning which he assumes to be exclusively his own, and that of those who are associated in his views of establishing the practice of man-midwifery on the legitimate authority of correct principles. I am, then, at issue with Dr. Merriman on the correctness of his obstetric principles, on the practice he founds on them, on the authorities they afford, and on the effects of their confident adoption.

To infer a "charge of murder" on the conduct of respectable, nay, highly skilful persons, according to the precepts of professed teachers, would be to criminate the *learner* for the errors of the *teacher*; it would be to proscribe the application to practice of what is affirmed to be indispensably requisite. Were I disposed to impute the charge referred to, it should not be against instructed man-midwives, but against the asserters and defenders of the established system. But this would be wrong: it would be travelling far beyond the bounds of candour, of liberality, and of justice. No such charge could justly lie against either Dr. Merriman or the host of authors and preceptors whom he has triumphantly cited. They have unquestionably the most honourable and humane intentions in all they maintain on the subject. The fatal error common to science, and to every species of adopted opinion, is a rooted inveteracy against all innovation; and when the attempt to amend is directed against a specific number of advocates, a sort of *esprit de corps* is manifested, and an impatience, nay, a virulence, discovered at

at being contradicted or questioned, that has more the aspect of "craft" (I pardon the repetition of the epithet) than of undisguised frankness, and an unfeigned disposition to reconsider the disputable point. It is at present the authorised practice in man-midwifery to employ the various resources of the obstetric art in circumstances that are at least equivocal for a reference to that aid; or rather, the latitude that necessarily must be conceded to the intelligent interpreter of these general obstetric warranties is, in my apprehension, inseparably accompanied with frequent occasions for distrust and regret for the inevitable consequences.

Dr. Merriman should be seriously *grave* when he solemnly charges another who has feelings as well as himself with an idea of suspecting any human creature of deliberate murder! Is it "gentlemanly," is it decorous, nay, is it not truly "disgusting," for a person of Dr. Merriman's obstetric reputation to be borne away with a violence that would be inexcusable in one of his rawest tyros, because points connected with his professed practice are questioned and impugned? If a *hue and cry* about "murder" and other intemperate nonsense are to restrain the just liberty of remarking on principles and practice in any department of the medical profession, there would be an end put to all independent and conscientious investigation;—the tyranny of opinion and adoption would usurp the place of discussion and correction; and erroneous prejudices would have a chance of being sanctioned, if not by "craft," at least by clamour and groundless opposition.

Before Dr. Merriman again assumes an ungoverned rage in defence of what I have no doubt he sincerely believes to be correct, he should remember the fallible nature of all human reasoning, he should recollect that scarcely a hundred years have yet elapsed since the *inflammatory* character of the small-pox was denied and reprobated, and that the heating treatment of that disease has had its hecatombs of victims to its delusive correctness. Had Dr. Merriman flourished in the beginning of the eighteenth century, and been as much connected with *variolous* as he now is with *obstetric* practice, his persuasion of the correctness of the treatment then adopted for that disease would have been as firm and unshaken, and his expressions as confident and ungracious, as they are in support of his wedded attachment to modern accoucheurship. Does Dr. Merriman, in the visionary accuracy of all his obstetric views, and in his unsparing imputations on any one who would question them, believe that any person condemning the heating treatment of small-

small-pox, and its destructive tendency, would be charging "wilful murder" on the unoffending zealots of that treatment. It was the delusion of principle that misled to the hurtful practice; and it is against what appears to me to be in some respects a similar delusion that I have directed the objections which Dr. Merriman has so contumaciously resisted.

The yellow-fever, as it was called, that thinned the population of Philadelphia, and its environs, towards the close of the last century, was held to be of a typhoid character, and was treated with tonics and stimulants. This treatment was authorised by the established principles of the day applicable to that description of disease: the results of the practice, however, proved much more baneful than the spontaneous course of the distemper. Dr. Rush, led back by accurate observations from the seductive influence of system and prejudice, reversed the treatment, and, in so doing, annulled the destructive power and horror of the complaint. Bleeding and purgatives, to an un heard-of extent, superseded the use of bark, wine, and the whole tribe of anti-putrescent stimulants. Thousands are yet alive to attest the happy, the intelligent controul under which that exterminating disease was brought by the contrasted treatment that was instituted. If the zeal with which Dr. Merriman advocates whatever he has proposed and adopted in the obstetric art had maintained its ascendancy in the stimulating mode of treating the American disease under consideration, what would have ensued? Thousands now existing would have been added to the defunct list; but it may be justly presumed that the enlightened, the judicious, nay, the skilful practitioners who had so treated them, would neither have been charged, nor could have been morally held as guilty of "murder." The advocates of the stimulating treatment were told by a contrary experience, as well as by the honest injunctions of the humane, that they were wrong, that the treatment they pursued would be mortally injurious; but they were unconvinced of their error, and persisted in it, under a conscientious persuasion that they were correct; precisely in the same manner as modern accoucheurs persist in the practice of interfering, in anticipating, and occasionally in perverting, the regular course of Nature, not to "murder," but to assist *secundum artem*, and according to the authorities of doctrines confidently taught and implicitly adopted.

The cooling treatment of gout, to which I some years since drew the public attention, has been also reprobated as fraught with

with the most deadly evils. Time has greatly diminished the early asperity with which it was opposed. Some scurrilous reviewers, indeed, on that occasion, went the length of Dr. Merriman in charging the crime of "murder" on any one who should have the unfeeling audacity and hardihood to authorise and defend such an altered treatment of the disease. Had I been terrified by inconsiderate alarmists, or rebuffed by "ungentlemanly" coarseness, and criminal accusation, the salutary effects of the practice would not have been known as they now are, and the pride and folly of ancient errors and prejudices on the subject would have triumphed over a benevolent endeavour to introduce an improved mode of practice in that painful and undermining disease. The perfectionist in morals, as well as in medical physics, may muse on the ideal completeness, the finished accuracy, of his views; but the liberal and unprejudiced observer will discover defects at almost every point, which he will feel bound to expose and comment on without fear or apprehension from those who indignantly resist every attempt to storm the fortress of established and venerated abuses.

If Dr. Merriman and his obstetric fraternity regard themselves as privileged in proposing and in insisting on certain auxiliary schemes in aid of Nature's parturine insufficiency, and if they protest against all comments on those assumptions, as if they were consecrated by the natural order of things, there is an end of all freedom of discussion; adverse arguments must succumb under *corporate* law, and he who dissents must compound by being branded with imputations of "inexperience," "ignorance," "disingenuousness," "ungentlemanly" expressions, &c. for disturbing such settled and indisputable authority.

Dr. Merriman may take his stand with art, I will patiently take up my abode with nature; and, though the infirmities of the latter may be at times usefully assisted by the former, it will not be in the power of any one to convince me that the generative system of animal life is so constituted as to require the almost incessant watchings and assistance of adventitious power to further and extend the advantages of parturition.

Taunton;
April 10, 1816.

For the London Medical and Physical Journal.

Report of a Case of Inguinal Aneurism; by J. B. WHITRIDGE, M. D. of the United States Army.

[From the New-England Journal of Medicine, &c.]

WILLIAM TROBRIDGE, aged nineteen years, born in the town of Norwalk in Connecticut, of a robust constitution, and by profession a shoemaker, enlisted into the third regiment of artillery at New-York, in August, 1812, from which time he served as a soldier (principally on the frontier), and generally enjoyed good health, until the 7th August, 1814, in attempting to pass the laboratory guard at Sacket's Harbour, (at nine o'clock in the evening,) he was shot by a sentinel on post. From the best information I could obtain of the attending surgeon, and from dissection, a buck shot passed through the dorsum penis, entered the right groin, penetrated the inguinal glands, passed nearly in the direction of the femoral artery, over the os femoris, and lodged in the vastus externus muscle. At the time the wound was received, he is represented to have bled profusely, even to deliquium animi; this, however, soon subsided: he was taken to the Hospital, and superficially dressed,—no hæmorrhagy followed. The wound was treated in the usual manner for gun-shot wounds, and after a lapse of about two months, on the 16th of October, he was discharged from the Hospital, and reported for duty. He performed the ordinary duties of a soldier, until about the middle of December, when he states that he was taken suddenly on post with a pain in his thigh: he reported his situation to the officer of the guard, and was relieved by another sentinel. His thigh was very painful, and, on examination, he found it much swollen. He suffered the pain and swelling to continue a day or two, and then made application to me. He represented it as a recent difficulty, but observed (to use his own expression) that he thought his thigh was going to break out again.

On examination, I noticed his whole thigh to be much tumefied, from his groin almost to his knee, but most about the groin, and particularly at the part where the shot entered. I pressed it on every part with my hand, but could feel no pulsation. The patient being interrogated on this point, observed, that he had felt none at any time, though there was some heat about the tumour, the temperature of which was somewhat above the rest of the body; as there was no redness at the surface, I thought the case a very singular one. The tumefaction being represented as a *recent difficulty,*

difficulty, I thought it not improbable, as the pulsation was wanting, which is ever considered an inseparable diagnostic, consequently an infallible criterion of aneurism.* I supposed it the incipient stage of a deep-seated abscess, consequent to the wound as its remote cause, perhaps resulting from a wound of the os femoris by the passage of the buck-shot subjacent to the extensor muscles (that this was not the case was a circumstance at that time unknown to me).

As the tumour seemed rather of an indolent nature, I thought it best to attempt, if possible, to discuss it; and to this end directed an epispastick, of meloes vesicatorii, to be applied; a cathartic of sulph. sodæ to be given him; and ordered him to return to his quarters.

From the pressure of business, I was unable to pay that minute and particular attention which his case merited. I did not see him again until the second day following, at which time he came to me and reported his situation unrelieved—his disease unabated. The blister, it appeared, had done no good, but, on the contrary, had probably done injury.

Considering the case an important one, as he could not receive the necessary attention, nor have the necessary accommodation in the barracks, I ordered him to the Hospital on the 22d of December. For the first day or two after his admission into the Hospital I prescribed nothing for him, but waited to see what course his disease would take. The swelling increased, and the integuments became very tense. I supposed suppuration would take place, and, with a view to promote this end, ordered emollient cataplasms to be applied; these were continued five or six days without intermission.

The effect was, to relax the integuments, to remove the tension of the surface, and to abate the swelling. A fluctuation became in some measure perceptible, though so imperfect as to leave the mind in doubt as to the nature of the tumour, in as much as it did not point at any place, in the usual manner of abscesses, which contain pus. The integuments, however, were thinner at some places than others, and most so at the point where the shot entered; which led to the opinion, that if the abscess contained pus, and were left to itself, it would burst *at that point*. The cataplasms were discontinued after five or six days' application, in consequence of their becoming painful, and disagreeable to the

* Except indeed a case of axillary aneurism described by Mr. Pelletan, and perhaps some others.

patient, having done all that was expected; for it seems that poultices to suppurating wounds or abscesses, or those disposed to suppurate, do no good, after a certain period. A longer continuation of them does material injury. This period must be determined in every case, by the experience and judgment of the practitioner. Although the poultices were discontinued, no pointing had taken place. I applied a flannel roller about the part, and waited five or six days for this event, with an intent to open into the morbid cavity, as soon as the integuments should become thin, and the abscess shew a disposition to evacuate its contents. While deliberating on this, instead of exhibiting any disposition to open, the whole thigh again became swelled and painful; some heat ensued, the parts became rigid, and the fluctuation less perceptible.

The patient constantly lay upon his back, and kept his leg in a state of moderate flexion upon the pelvis, and also at the knee. After the cataplasms were laid aside, I again applied the flannel roller, in order to keep the limb warm; and to prevent the protrusion of the matter upward under Poupart's ligament, and backward among the glutei muscles, I applied it firmly in the groin above the tumour. The health of my patient during this time continued tolerably good; his appetite, however, was poor, and his countenance pallid, in consequence of the pain of his thigh, and of being confined to his bed.

Several days elapsed before any thing was done; the temporary good effects of the cataplasms did not long continue; his thigh again began to swell, and very soon attained to an enormous size. During all this time, no pulsation was perceivable, neither could the tumour be made to recede upon pressure. Although an incision had been proposed, I felt delicate about attempting it, until I had called a consultation, a thing, I am sorry to say, rather unusual in the army, for want of talents and education, and that harmony between my medical brethren, and that confidence in each other, which is so necessary for the advancement of medical science.

Owing to some untoward circumstances, the consultation did not take place until the 8th of January, at which time the integuments had become very thin, much distended, very painful, and almost ready to burst. I then took with me Dr. Thomas Harris, surgeon of the United States navy, an amiable fine young man, a scientific physician, and a well-read surgeon. He had previously heard the history of the case, and, on examination, expressed, and appeared to feel much doubt, as to the nature of it; but concurred with me in the opinion, that the tumour most probably contained pus,
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and recommended an incision into it, at the thinnest part of its parietes, which was at the point where the shot entered, directly over the crural artery.

We were so far persuaded that pus would be found, on laying open the cavity, that we were unprovided with other instruments than those necessary for this operation. I made an incision into the tumour, through its parietes, three inches and a half in length, and about four-fifths of an inch in depth. Coagulated blood and pus were immediately evacuated, but not freely. I extended the incision upwards of two inches farther; it then not freely evacuating, I commenced clearing it with my thumb and fingers, aided by a pair of common long forceps.

Large portions of very firm coagula were removed, covered with a small quantity of pus on that part which lay contiguous to the parietes of the tumour.

After having removed at least one quart of its black and fœtid contents, a sudden and tremendous gush of fresh arterial blood announced the nature of the disease. I immediately seized the limb, pressed two edges of the incision firmly together, and held them in that situation until I could command the flow of blood by other means. No tourniquet being at hand, I called for a handkerchief, which my assistant, Dr. Harris, applied firmly in the groin, upon the upper part of the tumour, and twisted it up with a stick, which was held in that situation, whilst I laid a large compress of patent lint upon the opening which had been made, and applied a roller about the thigh. The hæmorrhagy being now completely restrained, I had an opportunity for a few moments' deliberation.

The disease was evidently an aneurism of the diffused kind; but whether it was a false aneurism, agreeable to Scarpa's doctrine of all aneurisms, and according to Mr. [now Sir Everard] Home and Dr. Hunter in some cases, or a true aneurism, agreeable to the definition of most writers on this subject, was uncertain, and altogether immaterial, as the treatment is the same.

The sudden loss of blood occasioned a partial syncope, a very great depression of the pulse, and prostration of strength, together with a pale and cadaverous countenance, with rolling of the eyes.

These symptoms were accompanied by a very considerable degree of mental derangement, occasioned by the sudden abstraction of stimuli, which seemed to be a delirium from inanition.

His pulse became almost imperceptible, he fell into a cold sweat, and, in short, his general symptoms were very alarm-

ing, and even threatened immediate dissolution, although the quantity of florid arterial blood which he had lost perhaps did not exceed half a pint. Stimulants, such as wine, brandy and water, &c. were given him, which had the effect to raise his pulse a little, and in some measure to restore him, although it did not relieve the delirium. It became necessary immediately to resort to an operation, as the only alternative to preserve the life of the patient, which could be attempted with very little hope of success.

After considering the case, it was finally agreed, as a dernier resort, to take up the external iliac artery as high as possible above Poupart's ligament. Accordingly the necessary preparations were made. I was unprovided with an aneurismal needle of any kind; and, for want of the needle invented by Dr. Physick for securing bleeding arteries in deep narrow wounds, I took a common surgeon's needle, of the largest size, broke off the point of it, reduced its temper by heat, made the end of it smooth, gave it such a curvature as I wished, and adapted it to a pair of common straight forceps, which I substituted for Physick's curved forceps, and tied the handles.

Every thing being now ready, the patient, having previously taken a pill of camphor and opium, was placed upon a table of convenient height, and the operation performed on Sunday, January 8th, at five o'clock in the evening, by candle light, in presence of Dr. Harris and Dr. Gordon of the navy, and a number of gentlemen of the army.

Without entering into a minute detail of the manner of operating, suffice it to say, that the operation was performed in a manner similar to that described by Dr. Dorsey, which was the first and only case in America, that I have seen reported, in which this operation has been performed. The principal difference of this operation was in the situation and extent of the incision. The situation of the artery, of the spermatic cord, and of Poupart's ligament, being previously marked out, I commenced my external incision at a point, upon a line, from the anterior and superior spinous process of the os ilium to the umbilicus, about two inches from the former, and four from the latter. This incision was extended obliquely downward five inches, dividing the skin and adipose membrane, and terminated within one inch of the symphysis pubis. By the subsequent incisions, the tendon of the external oblique muscle, the internal oblique, and the transversalis abdominis were divided; but the incisions were not extended so low as to wound the epigastric artery, or the spermatic cord. I met with considerable embarrassment in this operation, from the delirious state of my patient, who kept

kept constantly hallooing, making strong inspirations and expirations, writhing and contorting his body, throwing the abdominal muscles into violent action. But the greatest difficulty I met with was what Mr. Freer so much complains of, that of passing the needle round the artery. This I was unable to do, from the great quantity of adipose substance with which the artery was enveloped, until I had denuded the artery by careful dissection, and a division of the fascia. This part of the operation was the more dangerous and difficult, in as much as I was under the necessity of performing it by candle-light.

The strength of the patient was preserved during the operation by the repeated administration of stimulants; and, after it was completed, the handkerchief and the bandage were removed from the thigh: that part of the coagula which protruded immediately at the orifice of the sack was also removed, the limb washed, and superficially dressed, by the application of a large pledget of lint, and a roller. The patient was then placed in bed, with his leg in a relaxed position, supported by pillows.

The patient, though somewhat restless, passed the first night as comfortably as could be expected under existing circumstances. The relative heat of the lower extremities was not observed previous to the operation. The thermometrical temperature after the operation, at twelve o'clock in the evening, when I made the experiment, was as follows:

Temperature of the room -----	66°
----- under the tongue -----	97 $\frac{1}{3}$
----- of the right ankle, or the ankle of the aneurismal limb -----	86
----- of the left ankle -----	88 $\frac{1}{2}$

Monday, January 9th.—At five o'clock and twenty minutes, A.M. examined the temperature between the toes, and repeated the experiment at the ankles.

Temperature between the toes of the right foot --	85°
----- left foot -----	94
----- of the right ankle -----	90 $\frac{1}{3}$
----- of the left ankle -----	90

Temperature of the room being about the same as before.

At eight o'clock my patient was perfectly calm and quiet, but recollected nothing that had passed since the laying open of his thigh. The blood was constantly oozing from the orifice of the tumour, which kept the dressings and cloths which were laid under it quite wet. At twelve o'clock I took off the dressings from the thigh (but left those about the body undisturbed), and removed that portion of coagula which

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which lay contiguous to the incision. At twenty minutes past three o'clock, P.M.

Temperature of the room	66°
..... under the tongue	100
..... aneurismal limb at the ankle	92
..... left leg at the ankle	93

No considerable variation in the evening.

He remained very quiet through the day, but felt no disposition to sleep at evening. At ten o'clock I gave him half a grain of opium, which had but little effect; at two o'clock, a pill containing one grain and a half of camph. and half a grain of opium was given him, which procured some sleep: as he had had no evacuations from the bowels since the operation, to prevent the constipating effect of the opium, at four o'clock, I directed half an ounce of ol. ricini to be given him.

Tuesday, January 10th.—Some difficulty of respiration, pulse full and hard, heat somewhat increased; ordered sub. muriatis hydr. gr. v. rhei. gr. x. which produced several dejections in the course of the day, without much alleviation of the symptoms. In the evening there was quite an increase of heat, which was as follows:

At 11 o'clock in the evening, temperature of the room	67°
Temperature under the tongue	100
..... right leg above the knee	96
..... left ditto ditto	97
..... between the toes of right foot	96½
..... left foot	98

The thigh was dressed as yesterday, and at least one pint of coagulated blood removed, by my thumb and fingers, and by pressure upon the thigh. At twelve o'clock at night, bled him oz. 14, which gave him some relief, but occasioned no sleep: at two, he took a pill of one grain and a half of camphor and half a grain of opium, after which he dosed until morning.

Wednesday, January 11th. Morning.—Patient somewhat better; complains of much hoarseness, and a dry throat; directed syr. scill. marat.

At half-past two o'clock again examined the heat of the body.

Temperature of the room being	63°
..... right leg above the knee	97
..... left ditto ditto	98
..... between the toes of the right foot ..	94
..... left foot	95

Arterial action something above the healthy standard, complains

plaints of some tightness across the thorax; having no alvine dejection, at eleven o'clock in the evening, gave him gr. iii. calomel and gr. iv. of rheum. He has complained of considerable thirst for two or three days: his principal drink has been lemonade; food—water-gruel, milk-porridge, crust coffee, &c.

Thursday, January 12th.—The cathartic of the preceding evening not operating, at twelve o'clock, ordered half an ounce of ol. ricini, which produced four or five evacuations, and a considerable reduction of the pulse. The temperature of the extremities was also reduced two degrees lower than yesterday.

Friday, January 13th.—Condition of the patient much the same as yesterday; flattering prospect of recovery. At 10 o'clock in the evening, after dressing—

Temperature above each knee -----	94°
----- between the toes of the right foot --	94
----- left foot ----	96

At eleven o'clock directed tincturæ opii. gutt. xv.

Saturday, January 14th.—The anodyne, not having the desired effect, at 10 o'clock in the morning, ordered a repetition of the dose, and, at six, an aperient of ol. ricini; syr. scillæ mara. continued. An anodyne in the evening. The aneurismal sack, which has now become a complete abscess, has been dressed daily since the operation; and the incision at the abdomen has also been dressed daily since the third day after the operation. The dressings are strips of adhesive plaster, a pledget of lint, and the uniting bandage. At the first dressing, the angles, and a considerable extent of the incision, had united by the first intention.

Sunday, January 15th.—On dressing the abscess to-day, pressed out a large quantity of coagulated blood, mixed with pus, which seemed to relieve a little hacking cough which has affected him for two or three days past. Pulse above ninety in a minute, much reduced in force, yesterday and to-day, but not much in frequency. For want of a time-piece denoting seconds, I was unable to ascertain the frequency of the pulse with that particular accuracy which might have been wished. At ten o'clock in the evening he took twelve drops of laudanum, after which he slept better than any preceding night since the operation.

Monday, January 16th.—On removing a strip of adhesive plaster, the aneurismal sack burst upon the top of the thigh, at the place where the shot entered. Grumous blood and pus spouted at least four inches from the orifice, which, at first, excited some surprise, as it had a little the appearance of arterial blood. At least one pint of coagula was removed

at this dressing, by my thumb and fingers, together with my knife and scissors, principally at the external orifice. Heat and pulse much reduced at this dressing. Ordered one table-spoonful of the vinous tinct. of bark. Bowels somewhat constipated, nothing having passed for the last thirty hours. Ordered an enema of sulph. sodæ to be administered; pulse near one hundred in a minute.

Tuesday, January 17th.—Abscess dressed twice; pulse very much reduced; patient much affected with cough. Ordered bark and wine to be given every hour, and an anodyne in the evening.

Wednesday, January 18th.—Again repeated the thermometrical experiment:—

Temperature of the room at one o'clock -----	68°
----- under the tongue-----	100
----- between the toes of the right foot --	93
----- left ditto --	94½
----- above the right knee -----	97
----- left ditto -----	98

Bark and wine continued hourly, through the day. Cough increases, with a hectic flush in the afternoon. Bowels constipated. Ordered an enema of amyllum in the evening. Pulse quick and fluttering; an hundred in a minute. At ten o'clock gave an anodyne as usual.

Thursday, January 19th.—Appearances much the same as yesterday. Had a voluntary stool in the evening; medicines continued; extremities cold; right foot painful; a want of action in the toes; directed the foot to be bathed with brandy and the tinc. opii.

Friday, January 20th.—Cough somewhat abated; rested well the preceding night; tongue less coated; pulse good, about eighty in a minute. Complains of severe pain in the knee, calf of the leg, and foot, both at and after dressing. Heat much diminished; the right foot indicating a disposition to mortification:—

Temperature under the tongue -----	99½°
----- above the right knee-----	94°
----- left ditto -----	95
----- between the toes of the right foot --	65
----- left ditto-----	84

Medicines continued; hot bricks applied to the feet; bathing and friction also continued.

Saturday, January 21st.—Appearances of the wound occasioned by the operation, and the abscess, good; discharges healthy pus from both, but much more from the latter than at any time previous. The foot and leg very painful, and swelled, with a livid appearance, mortification having commenced

menced in the little toe. Temperature of the foot much below the rest of the body. Ordered ten drops of laudanum to be given three times a-day, and the bark and wine continued in increased quantities. The aneurismal limb bathed as before, and bandaged with a flannel roller. At ten o'clock in the evening, bathed the right foot and ankle with a saturated tincture of cantharides, which produced an efflorescence of the skin, but did not materially increase the heat.

Sunday, January 22d.—Coldness of the foot and ankles continues. Mortification progresses in the toes. Partial sweats, particularly about the face, hands, and neck. Pulse strong and good, eighty in a minute. From the coldness of the weather, and the openness of the Hospital, it was very difficult to keep the room of an equable temperature:—

Temperature of the room -----	49°
----- at the right ankle -----	63
----- left ditto -----	84
----- between the toes of the right foot --	56

At eight o'clock in the morning, ordered the right foot and ankle to be bathed with ol. teribinth, after which to be bathed hourly with a saturated tincture of cantharides.

Monday, January 23d.—From the internal exhibition of medicine, and from the local applications that were made, the heat of my patient is very much increased:—

Temperature of the room at one o'clock -----	49°
----- under the tongue -----	103
----- between the toes of the right foot --	64
----- at the right ankle -----	64

The variation of heat is dependant upon a variety of circumstances, particularly that of dressing the patient; the exposure which it occasions uniformly produces a reduction of temperature. Pulse good; medicines continued. Though the action of the foot is somewhat increased, not being blistered by the tincture of cantharides, I applied a vesicating plaster over the whole foot and ankle. From fear that the pressure of the dressings upon the thigh might contribute to produce the coldness and swelling of the foot, the bandages were loosened last evening. To-day the suppuration is very extensive, probably in consequence of loosening the dressings; nearly half a pint of bland healthy pus discharged. The os femoris is discovered to be bare for two or three inches, and the periosteum to be destroyed. Firm and tight dressings were again applied. The ligature upon the artery came away this day, and the wound, occasioned by the operation, appears well, having completely healed, except the little place occasioned by the ligature.

January 24th, 25th, and 26th.—Colliquative sweats supervene.

vene. The situation of the patient now becomes quite precarious. Tonics and stimulants are continued in large quantities, with the addition of columb. and acid. sul. aromat.; injections are administered according to circumstances. The blistering is continued upon the foot and leg, without arresting the progress of the mortification. By these means the action of the system is kept up. Considering the situation of the patient, his pulse continues remarkably good. Appetite, which has hitherto been very poor, is now a little better. Food principally milk-porridge, occasionally a little chicken-tea or beef-soup.

Friday, January 27th.—The wound at the abdomen is now quite well. Cough increases; pulse feeble, frequent, and quick. A copious discharge of pus from the abscess, at least half a pint, which does not appear so well. It is thin, flaky, and smells disagreeably. The heat of the aneurismal limb, as far as the knee, somewhat increased, and about the same as the other. At ten o'clock in the evening—

Temperature of the right knee -----	96°
----- left ditto -----	97

Vesicating plasters and other medicines continued.

Saturday, January 28th.—Pulse stronger, and much less frequent. Appetite somewhat increased. Expectoration considerable. Had two voluntary discharges from the bowels. The discharge from the abscess not so great; appearance of the pus much better, quite homogeneous, and perfectly bland. The blisters, having now drawn tolerably well, are removed, and the parts dressed with basilicon sprinkled with cantharides.

January 29th and 30th.—Appearances much the same. Bowels, which have all along been constipated, are now becoming rather loose. Appetite better; ate some beef-steaks to-day (Monday) with great relish. The gangrenous process still progressing. Medicines continued half-hourly, in as large quantities as the stomach will bear, and as much wine and brandy as the patient will take.

There has, apparently, been a great want of action in the parietes of the aneurismal sack and parts adjacent, for a long time; perhaps owing to the pressure of firm coagula, so as to destroy the action, and produce a sloughing of the neighbouring parts. With the coagula, some portions of mortified substance were discharged daily, which, from their near resemblance, it was difficult to distinguish. To obviate this, after syringing the abscess with soap and water, and washing it with diluted brandy, I dressed it several times with cinch. off. in its pulverulent state, which, I think, acts both as a tonic and absorbent in abscesses and ulcers. How
far

far it was beneficial in this case, is difficult to determine; in other cases, I have found the external application of it particularly serviceable.

Tuesday, 31st.—The hole, at the point where the shot entered, has closed. The discharge of pus continues copious, say half a pint per diem. The foot and leg worse, especially the latter, which has become livid, quite to the knee, with a fluctuation about the capsular ligament. Medicines continued.

Wednesday, February 1st.—Appearances of the patient much worse. Sphacelation progresses rapidly. Leg very much swollen, and discharges a bloody watery fluid. The temperature of the foot and leg reduced to an equilibrium with the surrounding atmosphere. At one o'clock P.M. applied a blister above the knee, and a fermenting cataplasm to the leg and foot, with the hope of arresting the progress of mortification; but all to no purpose. The abscess this evening discharges a thin, bloody, fœtid matter; the external opening much dilated, and the parts within discoloured. Pulse small and frequent, about one hundred and thirty in a minute. Appetite failing; medicines continued as before.

Thursday, February 2d.—Mortification and swelling increase and extend quite to the abdomen. Scrotum discoloured and suffused with bloody lymph. Partial sweats continue. Pulse rapid and almost imperceptible. Countenance much altered, but cheerful. Very little appetite; ate some roasted apples to-day with relish. The yeast poultices are discontinued, and the limb sponged with a tincture of myrrh; afterwards covered with black oxyd of carbone and banded. Medicines, brandy, &c. continued, in as large quantities as the stomach will bear.

Friday, February 3d.—Patient still lives; appearances much the same as yesterday; the whole abdomen much swollen. Loaths both food and medicine. Stimulants, however, are continued in large quantities, and brandy in particular every few minutes.

Saturday, February 4th.—At five o'clock in the afternoon, under the treatment of yesterday, my unfortunate patient died, retaining the full exercise of his intellectual powers until the last.

On Sunday morning, in presence of Dr. Harris, I examined the body of the deceased, and am happy to state to the world, although the event of this case was unfortunate, that so far as relates to the operation all was well. It succeeded most perfectly.

Appearances on Dissection.—All the parts in the neighbourhood of the artery were uninjured by the operation, except those necessary to be divided. The inflammation in the cavity of the wound produced a slight adhesion of the omentum to the peritoneum, say from one third to half an inch. Except this morbid adhesion (which was not of the least consequence) all the parts were nearly in their natural state. The internal iliac artery was not so much enlarged as might have been expected. From the putrid state of the limb, the texture of which was very much destroyed, I was unable to trace the minute ramifications of the internal iliac artery into the substance of the thigh, but presume, from the size of the trunk, which was very little larger than its fellow, that they were not much dilated. I have now before me a preparation of the artery and vein, with the trunk of the principal branches of the artery, from the bifurcation of the aorta to the popliteal artery of the ham, with the external and internal iliac of both sides.

The disease was evidently a false aneurism, an aneurism of the diffused kind. The coats of the artery were not in the least dilated; the bleeding point of the artery was four and an half inches from the bifurcation of the arteria iliaca communis. The mouths of the divided artery were an inch and an half asunder, gaping, with their edges ragged. The ligature was made one inch below where the internal iliac is given off, which, of course, divided the artery; the mouths of which, at this place, were separated half an inch, standing open, their edges smooth. The accompanying vein and nerve were sound. The thigh very much reduced in size, being diminished full three-fourths since the operation, by the general wasting of the system, the absorption of the parietes of the sack, and the sloughing of the muscles. The periosteum destroyed for a considerable extent, and the os femoris carious.

Queries.—What was the cause of this aneurism? Did it result from a direct wound of the artery, by the passage of the buck-shot? by an erosion of the artery subsequent to that period? or by some cause independant of either?

Did the mortification depend upon the obstruction of the circulation, occasioned by the operation? or by the destruction of the minute ramifications of the internal iliac artery, occasioned by the pressure of the aneurismal tumour upon the surrounding parts, and by the subsequent sloughing?

Might not this patient have been saved by an earlier operation?
Sacket's-Harbour; February 22, 1815.

COLLECTANEA MEDICA,

CONSISTING OF

ANECDOTES, FACTS, EXTRACTS, ILLUSTRATIONS,
 QUERIES, SUGGESTIONS, &c.

RELATING TO THE

History or the Art of Medicine, and the Auxiliary Sciences.

Quicquid agunt medici,
 Nostri farrago libelli.

*Further Extracts from the Black-Letter Book, published
 Anno 1541, as mentioned in our last.*

¶ Here beynneth the fourth treaty of this present questyonary, in conteynge iiii. partycles. In the fyrste partycle is moued and solued certain questyons and dyfficultees vpon the maner of bledynge.

¶ Demaunde.

WHAT is bledynge or blode lettynge? Answere. Dyuers Auctours haue gyuen dyuers diffynicions of bledynge. Arnolde of the newe towne in his boke of partyculer operacyon that bledynge is incysyon of veynes, by the whiche incysyon the blode euacueth and the humours that rene in the veynes with y^e blode. And Auycen in his fyrste sen, of the fyrste boke of his canon sayth, that bledynge is an vnyuersall euacuacyon of emptyeng the multitude of humours. And in the thyrde boke of the sayde canon he hath dyffyned that it connue euacuacyon of humours. And Galyen upon the syxth artycle of the affoe of Ypocras upon this canon, Quecunque flōmie, &c. sayth that it is the comyn helpe of pluresy. ¶ Demaunde. What euacuacion is moste surest & least daungerous, eyther the lettynge blode or the medycyne laxatyfe? Answere. After Galyen in his lytell boke that he made of blode lettynge, that lettynge of blode is the least daungerous, for it is restraynt whan we wyll, and nat the medycine, for after that it is ones taken it wyll do y^e operacyon. ¶ Demaunde. For howe many intencions be the bledynge made? Answere. For vi. The fyrste is for to purge; and of this intencion sayeth Galyen in the thyrde of his Terapentycke that euacuacyon for the obiect regardeth all onely y^e replexion. The seconde intencion that bledynge is made is for to dyuerte, and this intencion putteth Galyen in the seconde boke of blode lettynge: it is somtyme antyspatic, that is to say dyuersyue; and this declareth Galyen in y^e fyfth boke of his Terapentycke, as the flux of blode at the nose of the ryght nosethrylle, is restraynte by the bledynge of the ryght arme. And whan the left nosethrylle bledeth the blode lettynge of the lefte arme restrayneth it, for the diuersion of the blode that for the blode lettynge taketh another way, and tourneth

tourneth in to other places than at y^e nose. And this lykewyse sheweth vs Ypocras in y^e fyfth partycle of his affor, where he sayth that yf the hynder parte of the heade dyd ake, y^e the souerayne remedy is to make the ryght veyne of the foreheade be opened, and nat onely for the euacuacyon that is made by the bledynge, but lykewyse for the antispase and diuersion. The thyrde intencyon wherfore bledynge is made is for to attray as Galyen declareth in the boke abouesayd of blode lettynge. Yf we wyll cause the menstrues of women to come we cause the sophynes of the feet to be opened, nyghe to y tyme that they shulde come, or els we apply to them ventoses wth scaryfycacyons in the nether partyes. The fourth intencyon wherfore lettynge of blode is made is for to alter, as sayth Galyen in the fourth boke of his Terapentycke, and vpon the fyrste artycle of the affor, that blode lettynge vnto Lipothomie, that is to say vnto fayllynge of the hert, sodaynly coletth all the body, and restrayneth the feuer as yf it hadde slayne it. The fyfthe intencyon is for to preserue, and this intencyon declareth Galyen in the said boke of blode lettynge, and on the syxte of affor, vpon this affor, that to who soeuer y^e blode lettynge is good & conuenable where as he sayeth that many dyspose to periplemonie and spyttinge of blode, to quynsees, to epylence, and appoplexy, were preserued of the sayd inconuenyentes, by lettynge of blode at the sprynge tyme. The syxte intencyon is for to lyghten nature, as Galyen declareth in the eleuenth boke of his Terapentycke, the xv. chapytre, towarde the myddes of the said chapytre, sayeng that it is than better to cut y^e veyne, nat onely for the feuers synocalles, but also in all the other that ar of rotten humours, and to them that haue aege and suffysaut strength therto. For nature dyspensed ouer all the body is lyghtned by cause y^e the thyng that greued it is taken away, as a great burden lessened and made lyght. The rest it dygereth that y^e ought to be dygered, and dyuyde that y^e ought to be dyuyded, and retourne to kyndly operacyons. ¶ Demaunde. What be they that may well bere the lettynge of blode? Answer. To this questyon Galyen in the boke aboue sayd of blode lettyng sayth that it is they that are robust and stronge, and that haue byg and large veynes, and that be nat to leane, to whyte, & tender. And contraryly the other may scantly suffre it for they haue but lytell blode, and theyr flesshe is largely euaporable. ¶ Demaunde. What folke suffreth nat blode lettynges? Answer. It is they that are of contrary dysposycyons to the dysposycyons aforesayd, as whytely coloured and leane folkes, or ouer fat and weake, y^e haue streyt veynes; and tendre folke, & specyally lytell chyldeyn afore xv. yeres, and olde folke after lxx. yeares, yf it be nat by great nede and with great cautele; and he that be nat wont to be letten blode, and they that haue weyke stomackes, and haue flux of the bely dyatryc, and people gullyng, fraungyng, and dronkerdes, & women with chylde, chyefly in the fyrste and last monethes, as vnto iiii. monethes, and after vij. monethes vnto the ende, and women havyng theyr floures; and Rasis in his fourth boke

boke of his *Almansor* putteth to them that haue fasted and suffred hūger. The fleumatykes, & them that are wont to diseases of colde maladyes. And those that dwelleth in very colde regyons, or vehement hote. ¶ Demaunde. How many and what veynes are to be let blode in the body of mankynde? Answer. As Haly sayeth in the nynth sermon of the seconde parte of his boke, de regali dispositione, there be xxxiiij. Of the which there be xij. amynd the armes, that is to wyte two medyans, two cephalykes, two basilykes, two affelleres, two cubytalles, and two seynalles. And in the head there be xiiij. That is two behynde the eares, two in the angles of y^e eyes, two organykes, two on the fūne of the heade, one on the foreheade, one on the hyndre parte of the heade, one on the nose, and two vnder the tongue. And there be viiiij. in the fete, two on the knees, two sopheynes, two scyatykes, and two at the ancles. Howebeit *Albucrosus* putteth in all but xxv. That is to wyt xv. in the heade, v. in the armes, and v. in the legges.

The most remarkable things in the above extract is the implicit reliance on Galen and the Arabian writers; the author conceiving it necessary to produce their authority in every answer. The passage from Galen on bleeding to fainting, in order, at a single stroke, to subdne a fever, was, we fear, overlooked almost from the time of Sydenham to Robert Jackson.

Two chapters follow on cupping and leeching, called here *ventosing* and *boringe*.

¶ And here begynneth the seconde partycule wherin is moued and assayed certayne questyons and dyfficultees vpon the maner of ventosynge or borynge.

¶ Demaunde.

What is ventosynge? Answer. It is the puttyng of boxes vpon any membre for to expuls the mater betwene the skynne and the flesshe. ¶ Demaunde. What are ventoses? Answer. Ventose is an instrument made in maner of a boxe with a streyt necke and a wyde bely. ¶ Demaunde. Wherof ought ventoses to be made? Answer. After *Albucrasis* they be made of thre thynges. Some of hornes, some of glasse, and some of brasse. ¶ Demaunde. Howe many fourmes is there for to vse ventoses, and what is theyr effectes? Answer. Some be with garsynge [cutting], and other without scaryfycacyon. Those that be done with scaryfycacyon draweth the mater out felyng, and y^e other contraryly. ¶ Demaunde. What dyfference is betwene euacuacions done by blode lettyng, by ventosynge, and by snayles blode sowkers [leeches]? Answer. The moste dyfference is of blode lettyng, for it draweth the blode deper than the boxynge or the snayles, and the snayles deper than the ventoses, whiche proprely draweth but betwene the skynne and the flesshe. And therfore *Auycen* sayeth y^e they purge more the thynne blode than the thycke, and more the vpperest than the nether. ¶ Demaunde. For howe many and for what intencyons are ventoses applicate with garsing vpon a mans body? Answer. For xii. intencyons. Some ge-

nerall, and some p^rtyculer. The generall is made to cleanse sensy-
 bly, and haue the place of a blode lettynge, whan blode lettynge
 dare nat be done for diuers thynges that letteth blode lettynge, as in
 a chyld of xiiij. yere olde, & in aged folke aboue lxx. yeres.
 And for this cause Auycen calleth vētoses curates of y^e veynes.
 The vii. intencyons wherby the sayde ventoses is applyed, is taken
 of the places y^e they be sette to. The fyrste is to purge the mater
 of the heade, and the parties therof; and therefore they are applyed
 in the nawpe of the necke, and kepeth the place of the cephalyke
 bledynge. And therefore they be good for the dyseases of the
 eyes, to the infections of the face, and stynkyng of the mouth.
 The seconde intencyon is for to cleanse the spyrytual maters, and
 therefore they must be applyed betwene the shuldres, & kepeth the
 meane for blode lettynge of the medyan, and therefore they be con-
 ferent to the dyseases of asma, palsy, & spettyng of blode. The
 thyrde intencion is to empty the mater that is conteyned in the
 nutrytyfe membres; and therefore shulde they be applyed to the
 raynes and to the loynes, and there they take the place of basilica,
 & therefore they auayle to the opylacyons, apostumes, and dolour of
 the lyuer of the reynes, and scabbes of all the body. The fourth
 intencion is that it is applyed in the myddes of the arme, for the
 ache & paynes of the parties therof. The fyfth intencyon is for
 that it is applyed in the myddes of the thyghes and the legges nygh
 to the ancles, and applyed there is in the stede of the blode lettynge
 of the sophynes, and therefore they prouoke the floures to women,
 and causeth them to pysse, and easeth the paynes of the matryce
 and the bladder, and cōfereth to the gowte of the fete & euyll sores.
 ¶ Demaunde. For howe many, and for what intencyons the ven-
 toses applyed without scarificacyon? Answer. But for one gene-
 rall intencyon, and for xi. partyculers. The intencyon general is
 for to drawe, and the partyculers do vary after the places that they
 be applyed to. The fyrste place is vpon the ypocondres to reduce
 & dyuert the blode of the nosethrylles after Galyen in the fyfth of
 his Terapentyke sayenge that whan the ryght nosethryll doth
 blede, for to staunch it y^e ventose must be applyed vpon the lyuer,
 and whan one bledeth at the left nosethryll it must be applyed on
 y^e mylt. The seconde place where they be applyed is vnder the
 brestes for to staunche and dyuerte the floures of women, as Ypocras
 sayth in y^e fyfth of his affo, and as Galyen declareth in the be-
 gynnynge. The thyrde place where they ought to be applyed is
 on the interyour parte of the heade for to reyse the euela, & to
 staunche the rewme. For to drawe the depe mater outward as
 Galyen declareth in the xiiij. boke of his Terapentycke, and for
 that cause they be often applyed vpon y^e appostumes that be in the
 clensyng places, the which Auycen byddeth to be drawn out as
 moche as may be. Lykewyse they be applyed for y^e same cause
 vpon y^e thyghes, for to prouoke floures in women. And also nyghe
 to the appostumes of the ioyntes, to w'drawe & deffende that the
 sayde appostumes do nat brede, and to put ferof the humours fro
 y^e sayde ioyntes. The fourth place to apply them is vpon the
 bredyng of synewes, in palsy, for to heat them, as Auycen sayeth
 in

in the thyrde boke of his Canon in the Chaptour of palsy. And Galien in the thyrde boke of y^e interyours, where as he proueth agaynst Archygenes that the brayne is pryncyple and begynnyng of the vertue anymall. The fyfth place to apply ventoses is vpon the bely in colyke passyon, for to resolue and vnuapen the vētosite, and cease the payne. The vi. place is vpon the matryce, and vpon the bowelles for to reduce and withdrawe them to theyr places, as Auycen sayth in his thyrde canon. The vij. place is vpon the rybbes & lyke bones for to reduce and retourne them in to theyr places, whan they are broken or disioynted. The viij. place is vpon the wayes and poores wherby the vryne passeth from the reynes to the bladder, as Auycen sayth in the thyrde boke of his Canon. The ix. place is vpon the eares & gappes of depe woundes, for to drawe out the fylth or other noyaunce yf there were any. The x. place is vpon the necke for to enlarge the wayes of the breth and of the meate. The xi. place to apply ventoses is vpon venymous bytings and blaynes to drawe out the thycke venym.

¶ Demaunde. Howe ought they to gouerned that must be ventosed before & after it? Answer. To the fyrste answereth Galien in the thyrde boke of the cretyke dayes, and the same proueth Albumazer ī his great introductory that the chosen dayes for to applye ventoses is whan the moone is ful & nat in the wane. For as the moone encreaseth in lyghte, lykewyse encreaseth the humours within the body, and as it waneth so descreaseth y^e humours and withdrawe them inwarde. And therwith it ought to be an australl day, that is to say hote and moyste, and the ventoses ought to be plyed from two of the clocke unto thre. And after y^e intencyons of doctours; fyrste y^e place ought to be bathed and fomented (which should be ventosed) with warme water yf the blode be thycke, but yf it be thynne it is nat nede at all, for it shuld be daunger of to moche resolucyon, and that the strength shuld weyked. And it is to note, that neuer scaryfieng ought to be made but fyrst ye must put to the ventose drye, bycause the blode must be drawn or it be voyded. As to the seconde question it is to be noted as is afore spoken that there be two maners of ventoses. Some be of horne, and some of glas. They of horne are applied in suckynge. They of glas with tow put in to the ventose, and fyre in the twoe and layde on the flesshe, than the fyre quenche where the ventose taketh. Or after Albucasis, take a lytell candell of waxe and gyue it a lytel stey belowe that it may holde ryght vpon the flesshe, and lyght it, than set on the ventose, and the candell wyll quenche and the ventose take holde. And the Cyrurgyen oughte with his handes to rubbe all aboute the place to moue the blode to it. As to the thyrde questyon after that ye haue applyed and set to the said ventose by two or thre tymes yf it be nede whan it is taken away ye ought to make certayne scaryfycacyons very depe with the rasour, and than wyepe and drye the bloody place, and than ones agayne set to the ventose as ye dyd before, and kepe it on halfe an houre tyll it be halfe full of blode, and then take it away and wyepe the place, and set it on agayne, and holde it there more or

lesse till ye haue sufficyently halfe a pounce of blode, or to a pounce, after the tenour of the strength the quantyte of the replexyon. And yf after the fyrste apposycyon after the scaryfyca-cion yf it blede nat wel rub the place w^t the mouth of the ventose, or gyue it small fyllyps with your nayle, and garse it a newe that it may blede well, and whan it hath ben ventosed wye and drye the place, and than anoynte it with oyle of Roses or other oyntement to mytygate the smert, and gouerne the pacyent as is aforesayde of them to be letten blode. ¶ Demaunde. Shal they be set vpon brestes of women or other softe place? Answer. Nay, for daunger that it do nat entre to depe in quantyte, & may nat be had agayne. ¶ Demaunde. Yf the ventoses wyl nat hold whan they be set on, what ought y^e Cyrurgyen do to make them faste? Answer. He must bath and foment the place all about with warme water in such wyse & so longe that the eyre entre nat. ¶ Demaunde. Is it nedefull for to contynue & kepe them longer? Answer. No, speccially aboute the pryncipal membres that are the mynes of strength; for behynde the necke they hurte the mynde, and behynde the shuldres they anoy the herte, & in the ryght yponcondre they noye the lyuer.

¶ Thus endeth the seconde partycule of this treatyse.

¶ Here beynneth the thyrde partycule of this treatise, where as be moued and assogled some dyfficultees and questyons vpon the maner to apply blode suckers or horse leches.

¶ Demaunde.

Wherefore are horse leches applyed? Answer. For to vnderstande y^e solucyon of this questyon is to be noted what horse leches be. They ar wel knowen to be certayne lytell blacke wormes lyke to Myce tayles and haue small yelowe streykes on theyr backes somewhat brownysshe vnder the bely, and to the question they are put and applyed to drawe or soucke as is beforesaid. ¶ Demaunde. Whiche are the blode suckers that ought to be chosen; and whiche are holsome; and whiche are daungerous and oughte nat to be applyed in any wyse? Answer. They that be good are foude in clere waters; and they that be of a lothsome coloure with great heades, and that be rotten, and founde in noughty waters be daungerous, euyll, and venymous. ¶ Demaund. To what bodyes and to what membres ought they to be applyed? Answer. They ought onely to be applyed in bodyes voyde of replexyon, for in cacchymyke bodyes and replete they ought neuer to be applicate as touchynge the places and membres that they oughte to be put to, they are applyed but onely to suche places as ventoses can nat be set, as to synewes, in the lypes, gūmes, & in places drye and scarce of flesshe, as the fyngers and ioyntes. And Thederyc wylleth that somtyme they be set vpon apostumes of the clensynge places, whiche are of dyffycyle curacyon and maturacyon; & some wyl haue them set on emoroydes for to open them. ¶ Demaunde. In howe many maladyes are blode suckers good? Answer. Auyccen sayeth y^e they be good to scabbes,

scabbes, to emoroydes, and to apostumes of the clensynge places as it is sayd. ¶ Demaunde. How shulde blode suckers be applyed? Answer. They ought nat to be applied whan they are new taken, but kept in fresse clere water all a day tyll they haue purged of all that was in theyr belyes. And than rub the place that ye wyll put theym to tyll it do were ruddy, and wasshe it or anoynte it with a lytell blode, or garse it with a rasoure that some blode yssue, & than put them to with a rede or your handes, and put them in two or thre places as nede shall be. And whan they haue wel sucked and drawen tyll they be full, they wyll fall of by themselves; or els put a lytell vyneygre on theyr heades, or whyte salte, or aloes, or seperate theym with a horse heare or a fyne threde. ¶ Demaunde. Howe shall the place be ordred after that they are fallen of? Answer. Rub and wasshe it with salt and vyneygre. ¶ Demaunde. Yf after the extraction and fall of the worme there folowe emororgie or to great flux of blode, what ought the Cyrurgyen to do? Answer. To staunche it with a playster of Bolarmynyke, galles, balastye, & other that staūche blode. ¶ Demaunde. How ought he to be ruled that hath ben blode sucked after that they are fallen of? Answer. He ought to be ordred as they that be let blode, as it is wrytten in y^e fyrste partycle of this treatise; and he ought to take tryacle for doubte of ventosytes that blode suckers do brede.

¶ Thus endeth the thyrd partycle of this present treatyse.

The next chapter, on Cauterizing, is curious, not only as exhibiting the instruments of those days, but it shows that three centuries ago the French preferred the actual to the potential cautery.

¶ Here foloweth the fourthe partycle, where as be moued and sopleth other difficultees touchyng the maner of cauterisynge or searpyng.

¶ Demaunde.

What is cauterysacyon? Answer. It is an operacyon made wth fyre artyfyceally in y^e body of man for certayne vtylytees. ¶ Demaunde. Howe many maners of cauteris be there? Answer. Two maners. Some are actualles and they appere sodeynly in effecte, as they that are made wth instrumentes of metall, and brennyng; or with the rote of Arystologie, or of Affodylles that are sore hette, or with water, or with sethyng oyle layde to the place, cōnyngly & nat at aduenture. Other are potencyall whose operacions are nat so sensible nor so sodayne, but appereth afterward as they that be made with breūing or ruptycke medecines. And there is two maners of theym. Some are of stronge oppresyon, and maketh scarres as lyme & sope and anacardus. Some other thyrleth more lightly and make no scarres, but blysters as canterides, flāmule, and pantalupina. ¶ Demaunde. Which cauteris are the surest, the actualles, or the potencyalles? Answer. The actualles, because y^e action of fyre is moste simple. And also it hurteth lesse the nexte partyes, and pryneypall membres than

the action of rupture; for it is greatly suspecte to the pryncipall membres, and therefore it ought nat to be applyed, but yf case be that the pacyente were saynte herted and durst nat abyde the fyre; and in case that ye wolde apply cauteris lastly and for to purge; for in suche case the rupture for the payne that it maketh and for the byg scar that it leueth, and in weykyng of y^e place is cause of bygger flux of blode. ¶ Demaunde. Which is moste profytable to make actual cauteris with golde or with yron? Answer. In pryncypall and tendre membres, as the eyes, it is better to do it with golde than with yron. Howbeit in other mēbres it is more behouefull to do it with yron as sayth Albu. For the fyre may be better esteemed in y^e yron than in the golde or in syluer bicause of theyr colours, but yf it were a goldsmyth that is wonte therto. ¶ Demaunde. Yf actuall cauteris be necessarye, and to whome, and wherwith? Answer, Fyrste they be necessary to conserue helth and to heale diseases, and kepeth the rowme of profytable purgynge, as blode lettynge, and clensynge by medycyns laxatyues, in such that may nat suffre them. And the rest that remayneth after the purgynge it correcteth in great and stronge dyseases, where as it is wonte to be gyuen. Secondly they be necessary and conuenable to be gyuen in all dysposycions of maladyes; and specyall in materyall maladyes, saufe in suche as are hote and drye, wherin they do many euylles; and that it is true that they be profytable in the other fyrste dysposycions, and colde dysposycions and moyste, in as moche as it contraryeth them holly. Thyrdly in hote and moyste dysposycions in which suppose that holly they do nat contrary, neuertheless they contrary accydently; in as moche as it voydeth the cause of the maladye. Howebeit it is to be noted that suppose a cantere be a profitable remedy & very conuenable, yet it is nat nowe adayes so moche in vse as it was wont to be for the abusers of the arte and that exercysed it, the whyche indyfferently and in all dysposycions, that is to wyt in replecion or otherwyse apply them. And it is euyll done, & many euylles foloweth therby. And therefore good Cyrurgyen beware ryght well, that in a persone ful of humours good or bad neuer to apply Cantere without precedent purgacion. ¶ Demaunde. For howe many and what vtylytees are canteres made and ordeyned? Answer. For vj. vtylytees. The fyrste to comforte the membres, for they chaufe and drye the membres that were dilled with colde and humydyte. And therefore Galyen sayeth of the auctoryte of Ypocras, that the drye thyng is nerest the hole thyng, and the moyste thyng ferdest of. The seconde vtylyte is to withstande & deffende the membre from corruption. And therefore Auycen in his fourth boke cōmaundeth them to be done rounde aboute the estionoens sores spredying or compassynge, and to corrupte bones. The thyrd vtylyte that Auycen putteth is to resoluē the coarted maters in any membre; and therefore byddeth Albucrasis and Haly Abbas that they be applied to the paynes of the ioyntes, & great doloure of y^e heade. The fourthe vtylyte is to staunche the blode, as Auycen putteth, and Galyen in the fyfth of Terapentyc, bycause they

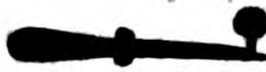
they make scarre. The fyfth vtylyte is purging olde fluxes as the eyes, & of all the body, & this vtilite putteth Arnolde of villenensis. And for that cause be the cetons & canteres done (behynde the necke,) and in the fontanelles of the lacertes where as one is deuyded from the other) vnder the sayd lacertes a two or thre fyngers from the ioyntes. The syxth vtylyte that Galyen putteth is to entrebreake, and intercyde the matter. And for that cause are the veynes of the temples cauterysed, bycause that the mater rēne nat in to the eyen, and in ruptures that the bowelles shall nat descende, and in the cyrcuyt and next places to wycked sores. And of this vtylyte Arnolde of vylle. maketh an afforysme, where he sayeth y^e the rennyng can nat be diuerted nor yssue kyndly, and that his abiden may be cōpetently clenched by canteres. The vij. vtylyte is for to drawe out the superfluytees. This vtylyte the cōmon vsage approueth by operacyon of apostumes by canteres, and by cuttyngē of kyrnelles, & extyrpacyon of flesshe quycke or deade. ¶ Demaunde. Which are the places and partycle of actual canteres? Answer. After men of this tyme there be viij. The fyrste is applyed to the toppe of the heade wherto the mayster fynger may reche begynnynge a spanne frō nyghe to the rote of y^e nose stretching vpwarde; & the doctours wyll that there ought to be applyed a rounde cantere with an oliuare for to resolue the brayue and dyuert the rewoose maters in the subiecte places by lowe, and some depe them to the bone, & other rase & make bare the fyrste table of the scul. Howebeit Alb. approueth it nat, and the sayde canteres applyed to the sayd places auayleth to ydlenes, fallynge euyll, paynes of the heade, and to rennyng of the eyes, to ptysyke, and to all rewmes.


¶ Demaunde. Whiche and howe many be there of actuall canteres, wherto they be vsed, and what shapes haue they? Answer. Dytors auctores haue vsed and dyscryued the forme or shape of certayne. Wylllyam of Salicet descriueth vi. or viij. Lanfranc x. Henry of Mundeuyll vij. Howebeit of all cōmon canteres Guydon dyscryueth but vj. whose names & formes foloweth. ¶ The fyrste is called Culterere (of Consteanc) that is a knyfe, and it is of two maners; one is called Dorsall bycause it hath a backe & cutteth but on the one syde; and the other is Ansall bycause it is made in maner of a swerde cuttyngē on both sydes. And with this Culterere be the superfluous flessches cut, and apostumes are opened, and the sores vlcères rectified. Of the which Culteres the shapes or fourmes are suche as be here figured.



¶ The seconde cantere is named Oliuare because it resemblith a kyrnell of Olyue, as sayeth Haly Abbas in his ix. boke de regali dispositione in the seconde party, and chapyter of doctions of the heade, and nat lyke to Olyue leafe as wened Lanfrancke, Salicet, and Henry. Also his operacyon declareth it, the shape is thus.

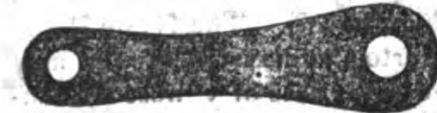
¶ The

 ¶ The thyrdē Cantere is called Dacteler bycause it is in semblaūce of a Date stone; and it is bygger than is the Olyuare; and the fourme is suche.

 ¶ The fourth is named punctuall, which hath the poynte sclendre and rounde; & it is of two maners. One is made with a rest or platte, bycause it shall nat perce thorowe the skynne; and with this there be Canteres to the dyseases called knottes in the fontenelles, and in the armes and legges. The other is playne & longe in maner of a beme of the sōne; which is applyed with a quylle; The fourmes of them are suche.

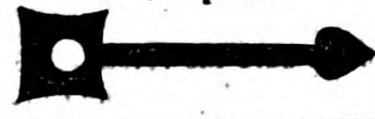


¶ The fyfthe is called a cantere subtile wherwith the Cetons are applyed with small tonges brode and perced. And this is lyghter and more durable.

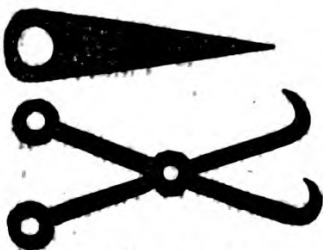


¶ The quyll.

¶ The plate.



¶ The fourme of the seconde is suche, that the punctualles bycause the name of punctualles do fall often, & haue nede of byndyng more tydeous than these be; the fourme is suche.



¶ The vj. is called Cyrclare, whiche hath v. adiutours to make v. canteres ad nodulum with plate perced of v. holes as this fourme followyng.

¶ The tonges.



¶ Demaunde. Howe and in what maner ought the canteres be applyed? Answer. They ought to be applyed in the fourme as foloweth. That is, fyrste the place must be sought where y^e they shall be applyed, and wye it wel and drie

it, than blysse it, after take your platyne or quyl and apply them all colde; but ye must nat let them lye long; and than gyue the canteres to the workeman that shall applye them all hote and very flamyng

flamyng, so y^e the pacyent se them nat. And let them be applyed vpon the sayde places in reuoluyng them contynually from one place to another that they cleue nat to the flesshe, tyl the rednes begone. And they must be harder pressed vpon the bones than on the synewes, and more lyghtly; and let it be done as oft as nede shall be. ¶ Demaunde. In what tyme, and in what hour ought the canteres to be applyed? Answer. After Galyen in y^e thyrde and thyrtene boke of his Terapentyke, at all tymes and at all houres as necessary requyeth; so that the body be cleue and nat full of humours. ¶ Demaunde. Howe longe ought they to be kepte open after the canterysyng? Answer. After y^e doctryne of Rog. & of those maysters by y^e space of xl. dayes or more, by the space of thre monethes; for that is the laste terme of apostumes as Ypocras sayth in the vj. partycle of his afforismes, and seconde of the pronostyces. And the cause is, for y^e vertue confortatyfe entred by the canteres by the foresayde tyme is euaporate, and the place weyked; and also there abydeth replexyon of euyl humours by the sayde openyng. ¶ Demaunde. Howe ought the place to be kept open after the canterysyng? Answer. They must be kepte open wth tentes or knottes of waxe, or with water in the whiche is steped and dyssolued the vertue of Euforbre, or scamony, or colloquintida, or of elebora, after the kynde of the humour that shall be purged, or with a pease, or a nut made of the wood of yuy, or of Gentian; and ouer it lay a cole leafe, or an yuy leafe; & ouer that a linnen cloth thre dowble, and a platyne of brasse or laton, or of syluer bounde theron, and be remoued twyse or thryse a day. ¶ Demaunde. Howe must they be ordred that shal be canterysed? Answer. Thus, Fyrste or they be canterysed they must be confortd, and to them declare the vtyltees and goodnes that canteres wyll do to them; and yf it be nede to make to holde hym fast, and to bynde hym well. And after that they be canterised ye must apply on the sayde places oyle of Roses (wth whyte of an egge well beaten togyder and well incorporate) by the space of foure dayes. And than apply vpon it a maturatife made with butter wel washed and vnsalted; and a lytell wheate floure, or with some other vnctuous thyng, and swete without salte vnto the scar be fallen; and than to be dressed & healed as vlcres be; saufe onely that yf ye wyl kepe them open for to purge y^e humours and the vaporious fumes, or that y^e place had ben opened longe aforehande. For whiche thyng it shulde nat be sure to close it without that it were euacuate by another place, for it shuld be daunger that the humours that were wonte to rene in the sayde membre shulde remayne within; and that peraduenture it wold deryuate to other membres and do more harme than was before. ¶ Demaunde. Is it of necessaryte that after it is closed to open it agayne, yf it be lefull to open it in y^e same place? Answer. Yes, or in another membre nere to it, or to the next place, as Arnolde of newe towne sayth in his parabolles. ¶ Demaunde. Yf they that be canterised with potenciall canteres may be ordred as they be canterised wth actualles? Answer. Yes saufe that they shal nat be bounde. And also those that blister make no scarre, whiche must be well applyed, correct,

and

and reprimete of theyr malyces. And after that the blysters be reysed perce theym with cysours or a nedle, and lay a coleworthe leafe theron; and couer it with lynnem, and ordre it as ye lyst. And bycause that they be nat blystred nor make no scar thus they fall within vij. dayes.

¶ Thus endeth this present questyonary made in the honour of Almyghty God; & profyete of yonge studyents in Cyrurgery, wyllyng to apply their study in y^e same arte.

The above is a most valuable specimen of ancient surgery, and of the manner in which it was taught. The catechistic form, and the authorities by which every answer is supported, almost like scripture proofs, seem to imply that the clergy of those days had the control of surgery as well as of every branch of science. The book is a small quarto: the only paging is an alphabetical letter to every fourth page, inserted at the bottom, and numbered as the alphabet is repeated.

HAVING, in a former Number, given, from the Medico-Chirurgical Transactions, a case of the true Elephantiasis of Aretæus, we shall, in the present, transcribe, from the same collection, a case of the Barbadoes Leg, or, as it is called in the island, the Rose. Our readers will, by these means, be familiar with the wide distinction between two diseases which have nothing in common but their name.

“The disease which has long been familiar in Barbadoes until within a very few years, and almost exclusively confined to that island, and which has been perhaps with impropriety denominated elephantiasis, has of late spread with unexampled rapidity through the whole of the West Indies. It is more particularly prevalent amongst the Blacks, although a considerable number of the white population are sufferers from its attacks. The parts most commonly affected are the inferior extremities; but the arms, penis, scrotum, and even the viscera, are not unfrequently the seat of the disease. The symptoms by which the elephantiasis is characterized, both in its acute and chronic form, have been detailed with such great precision by various writers, that it supersedes the necessity of any further description in this place; my object being merely to relate a singular instance of this disease, as occurring in the scrotum, which lately came under my observation. The enormous magnitude this part acquired, is, I believe, unprecedented in the records of medicine. It is not, however, merely on account of its singularity, that I have been induced to draw up the following history; but because I consider it a case of considerable practical importance, for, however rare such cases may hitherto have been, they are at present by no means unfrequent, and their number seems to be increasing almost daily.

“Montserrat, a negro, aged about 30, belonging to the estate of the late John Bourryau, Esq. received, when a boy, a kick on the right testicle from a mule. The testicle swelled, but, by the application of medicines, it was soon reduced to its natural size.

Some

Some time after this, he first became subject to the rose (the name by which the elephantiasis is called throughout the islands), which produced a permanent enlargement of both his legs. Some years elapsed before the scrotum became the seat of the disease; but, from his ignorance of dates, I am only enabled to obtain the following very imperfect history of the progress of his complaint. Five years ago the scrotum is said to have been somewhat larger than his two fists. Its increase afterwards was gradual and progressive, and did not incapacitate him from working, until within the last two years and a half. Since that time it has enlarged rapidly; and he has remained in almost total confinement, being unable to remove himself and burden from his habitation.

“Although prepared by descriptions for the scene I was about to witness, yet it was not without sentiments of the most lively commiseration and astonishment that I first viewed this singular production in October last. Language is inadequate to convey a satisfactory idea of the magnitude and appearance of this tumour; and all my efforts to procure a drawing of it proved unsuccessful.

“On removing his petticoat, there was exposed to view a tumour of rather an oval form, seemingly suspended from and greatly stretching the abdominal integuments and spermatic cords, reaching back wards to the verge of the anus, and descending to within an inch or two of the ground. It measured longitudinally from the symphysis pubis to its base 29 inches, circularly 43. The spermatic cords could be distinctly felt, somewhat enlarged; the penis was completely enveloped; the urine was discharged in a full stream, and without difficulty, at an orifice situated nine inches below the pubis; on stretching this laterally, the extremity of the penis could be seen at the distance of about three inches; this canal was formed by an elongation and distention of the prepuce. The surface of the tumour was equal, smooth, with superficial veins; the superior part thinly interspersed with hair; the inferior scaly at times. The integuments felt extremely thickened, but were not of equal firmness, and retained for a time the impression of the finger. His appetite was good, his bowels regular, and his general health unimpaired. He informed me, that, when on his back in bed, and under the impression of lascivious ideas, he was subject to erections of the penis, at which times this member would project an inch or two at the orifice above mentioned; but that they were never terminated or attended by seminal emissions.

“After carefully examining the scrotum, I informed him, that, in my opinion, no internal remedies or external local applications could possibly lessen or alleviate his disease; neither could any operation be performed short of removing the whole tumour, which would necessarily be attended with considerable hazard. He replied that life was become burdensome to him, that he would rather die than remain longer in his present situation, and that he was ready to submit to any operation how great soever the risk. My friends, Doctors William and Thomas Swanston, having done me the favour to visit him, and concurring in the opinion I had expressed,

it was resolved that the operation should be performed; but the weather being extremely unfavourable, he was recommended to wait until it should become more cool and settled. On finding that there was a possibility of his being relieved, he became so importunate to have it done immediately, that, with a view to quiet his great impatience, a large blister was applied on each side of the scrotum, and kept open by the unguent sabinæ; a seton was afterwards made in each side; but, notwithstanding these discharged freely for nearly six weeks, no diminution of bulk was observable.

“The weather being now mild, I performed the operation on Sunday the 5th of December, in the presence of Doctors Swanston and Caines, who very obligingly favoured me with their most valuable counsel and assistance. The only difficulty that seemed to occur was how the penis could be saved: with a view to effect this, an incision, two or three inches in length, was made, commencing from a little below the symphysis pubis; the penis was by this means exposed, and, the extended præputium being divided, a flexible catheter was introduced into the bladder; all our effects to accomplish this having previously failed, owing to the retrocession of the penis. The spermatic vessels of each side were next laid bare, and secured by temporary ligatures passed round the cords. The incision was continued backwards to the verge of the anus, and the dissection carried upwards towards the penis. The tumour being removed, the spermatic arteries were secured separately, and the upper ligature slackened, but allowed to remain in case of need. The integuments were brought together by a few stitches and strips of adhesive plaster, and were sufficient to surround the root of the penis; so that this member was the only part that remained uncovered. The hæmorrhage during the operation was inconsiderable (except from a branch of the left pudic), the precaution being afterwards used of passing a ligature round the larger arteries previous to dividing them. My patient recovered without experiencing the most trifling unpleasant symptom. The wounds in the groins and in perinæo were firmly united at the end of three weeks, but the penis was not completely cicatrized before the beginning of April.

“On examining the tumour after its removal, the testicles were found to occupy their natural position: the left one was about the size of a hen’s egg; the tunica vaginalis of the right side contained three pints of water, and the testicle was considerably diminished. The right side of the scrotum being opened, the integuments at the upper part were about two inches, nearer the base they increased to four inches and a half in thickness; a fluid oozed from its substance, and the cavity was filled with a gelatinous matter and fluid, which also became gelatinous on cooling. The tumour weighed 70lbs. There was nothing peculiar in its structure.

“Early in February, Montserrat commenced taking Fowler’s solution, with a view of reducing the enlargement of his legs. This remedy was tried at the suggestion of Dr. William Swanston, in whose hands its use has been attended with considerable advantage.

tage. Arsenic has been long employed in the East Indies for the cure of elephantiasis (vide Asiatic Researches), and Montserrat appears to have derived benefit from it. His legs are somewhat less, and he says they feel slacker and much lighter.

“In similar operations, if the incision be made on each side of the penis, and the skin dissected inwards, perhaps a quantity sufficient to extend round the penis may be preserved. This would greatly accelerate the cure.

“Having no instances of a like operation to direct our judgment, and ignorant in what state the testicles would be found, (for the absence of emissions seemed to indicate that they had become useless,) no attempt was made to preserve them. Besides this, the thickness of that part of the integuments which must have been left as a covering, appeared to forbid the hope of their readily uniting, and the consequent inflammation and swelling of the testicles, would have added greatly to the danger of tetanus. There may be cases, however, of a more favourable nature, where it may be thought advisable to save these glands. I have said that these enormous swellings are now very frequent, and are becoming more so every day. I have a patient on the adjoining estate, and there are several others in the island, in whom the scrotum is from one-half to two-thirds as large as in the case above related; and there are numerous instances of enlargement and thickening of the scrotum, which are, no doubt, the same disease in an incipient state. When yet small, I have found setons on each side useful in reducing the swelling, but I fear such diminution will be merely temporary.

“Morgagni, in letter 43, article 42, quotes some observations from Waltheius, in which the scrotum and penis are described to be so tumid, that the latter extended itself down to the knees, and the former below them; the thickness of each of these parts corresponding to this length. On examination, the skin was found to be three times thicker than natural, and the weight of the tumour amounted to near 50lbs. Morgagni received the print of a similar case from Syracuse. There is also one of 60lbs. weight spoken of in the History of the Royal Academy of Sciences of Paris, for the year 1711. As I have not an opportunity of referring to these works, I am ignorant of the particulars of the cases, and of the mode of treatment that was adopted.

“Mr. Corse describes the case of Paunchoo, an inhabitant of the East Indies, in the Second Volume of the Medical and Chirurgical Transactions (with an engraving), in whom the scrotum reached to the ankles, and was 25 inches in length, and 38 in circumference. This, as well as those related by Morgagni, are instances of the same disease; but the present is the largest, and the only case, so far as I know, in which an operation was attempted; and I trust the success which has attended its performance, may induce medical gentlemen to propose, and patients in similar circumstances to submit to, a like operation, with the well-grounded hope of experiencing a happy termination.”

We have great pleasure in offering the following testimonials in favour of the Chev. ASSALINI's improved Instruments in Surgery, (from the Transactions of the Society for the Encouragement of the Arts, &c. vol. xxxiii. ann. 1815).

"The GOLD MEDAL of the Society was this Session voted to the Chevalier PAUL ASSALINI, Physician to Prince Eugene of Munich, for his Improvements in Surgical Instruments and Operations. The following Communications were received from him: four explanatory Engravings are annexed, and a Collection of the Instruments is preserved in the Society's Repository.

SIR,

During twenty years of medical and surgical practice in hospitals and armies on the continent, I have made improvements in many surgical instruments, and invented others, which diminish the difficulties attending operations, and render their success less dubious. The instruments have been examined by some of the most eminent surgeons in London, and their approbation of them has encouraged me to express to the Society of Arts, &c. the desire which I have to submit them to their inspection and respectable opinion, before I return to Italy.—I have the honour to be, Sir,

Your obedient Servant,

PAUL ASSALINI,

7, Manchester-street, Manchester-square, London.

October 25, 1815.

To C. TAYLOR, M.D. Sec.

CERTIFICATE.

"Chevalier Assalini, Professor of Surgery at Milan, being desirous of carrying into Italy some testimony of the degree of estimation in which his ingenuity and professional merits were held by men of science and practitioners in surgery in London, we have much pleasure in complying with his request, and declaring that we are induced, from every thing we have seen, to rank his talents very high, and to consider his contrivances for the relief of wounded men very ingenious.

Soho-square, London;

Nov. 15, 1814.

JOSEPH BANKS, P.R.S.

EVERARD HOME.

"MY DEAR SIR,

"I regret that we are so soon to lose your company, nor can I let you depart from this country without testifying my sense of the gratification and information I have derived from your society. The candour and liberality with which you have communicated important professional information, the ingenuity you have displayed in the construction of various surgical instruments, and the unremitting attention which, it is evident, you have paid throughout life to the advancement of professional knowledge, have impressed

me with sentiments of respect and regard for your character, with which, be assured, I shall always remain

Your sincere friend and servant,
Bedford-row; Nov. 17, 1814.
To Professor Assalini.

JOHN ABERNETHY.

"I have examined the instruments of the Chevalier Assalini with all the attention in my power. They mark a mind of superior ingenuity, and one very fertile in contrivances to lessen the difficulties of operations. Those which have struck me as deserving more than common praise are, first, the double forceps, well adapted to take up an artery separately from the accompanying nerve, or when situated so as to be deeply buried.

Secondly, his forceps for aneurism are well adapted to produce the object which he has in view. This, however, is said without meaning to decide upon the superiority of such an operation for aneurism over others.

Thirdly, his instrument for making an artificial pupil, which appears to me peculiarly adapted for the purpose.

The kind notice which was taken of the labours of others, in his work on the Artificial Pupil, manifest a liberal spirit, and a mind anxious to improve the profession of which he is an ornament.

ASTLEY COOPER.

The forceps I used in an operation yesterday, and found them to answer extremely well.

October 8, 1814.

"Professor Assalini, having demonstrated to us the particulars of the instruments herein expressed, we are happy in the occasion of declaring our entire approbation of them.

WILLIAM BLIZARD.

THOMAS BLIZARD.

"MY DEAR SIR,

"I feel very sensibly the honour you have done me in submitting your valuable improvements in several chirurgical instruments to my inspection. To say that much mechanical ingenuity is exhibited in the contrivance of them, is the least of their praise; for they appear to me to constitute a most useful and important addition to our stock of instruments, by which many great operations may be performed with unusual safety and facility, and the hazard and suffering subsequent to various accidents may be remedied, or greatly diminished. Your portable case of amputating instruments possesses so many evident advantages, that it ought to be regarded as an important benefit conferred on naval and military surgery.—

I have the honour to be, my dear sir, with great respect and esteem, your's, most faithfully,

JOHN PEARSON, F.R.S.

Surgeon of the Lock Hospital and Asylum, Consulting
Surgeon of the Public Dispensary, &c. &c.

Golden-square; Nov. 16, 1814.

To the Chevalier Assalini."

Certificates are also affixed by Mr. B. C. Brodie, Mr. R. Keate, Mr. George Young, Mr. H. Earle, Dr. George Pearson, Dr. Robert Good, Dr. Samuel Merriman, Mr. Charles Mansfield Clarke, Mr. Robert Watt, Mr. J. Briggs, Mr. Blair, Mr. Want, and other medical and surgical gentlemen.—For a description of the Instruments, see our Journal, vol. xxxiv. pages 2 and 116.

CRITICAL ANALYSIS

OF RECENT PUBLICATIONS

IN THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND
MEDICAL PHILOSOPHY.

Edinburgh Medical and Surgical Journal, No. XLVI. for
April, 1816.

Medical Topography of New-Orleans; with an Account of the principal Diseases that affected the Fleet and Army on the late Expedition against that City. Communicated by a
NAVAL SURGEON.

WE have read this paper over with peculiar pleasure and satisfaction. The first part, on the topography of the scene of action, is particularly interesting, being in all respects perspicuous, and, we have no reason to doubt, just. At the same time, it should be observed, that we found great occasion to make allowance for a young writer and practitioner, if not a young man; not for any deficiency in correctness, not for any error in practice, but for a little prurience and a little unacquaintedness with some minuter distinctions in diseases. We, however, heartily congratulate the subjects under his care, the service for such an acquisition, and (if he is really young) the profession on the prospect of such an ornament.

In the medical part of the Topography, we meet with nothing but those effects which are to be expected on flat alluvial soils, probably recently formed by the lighter parts of the land through which is the passage of rivers forming, like the "Mississippi, a most august feature in the physiognomy of a country."

"The climate, too, of New-Orleans must not be overlooked, as its peculiarity, co-operating with the above-mentioned distribution of the Mississippi and the condition of the soil, is the real and only cause of those formidable diseases to which this city and
its

its vicinity are subject. It is one of the anomalies of the New World, not yet very satisfactorily accounted for, that the intensity of the heat in summer, and of the cold in winter, is much greater than in the Old World, on the same parallels of latitude. This difference is very obvious all along the eastern shores of the American continent, but nowhere is it so striking as at New-Orleans. From the end of November till the end of March, the weather is generally cold and rainy, with frequent hard frosts. At those times the thermometer ranges from 20° to 40° in the shade; and there are instances, I am told, even in so low a latitude as 29° north, where, in the night, it is only a few degrees above Zero. On the contrary, during summer this climate has all the characteristics of the torrid zone; the thermometer stands at 87° or 90° in the shade. At New-Orleans, especially, the weather is close and suffocating, from its distance from the sea, and, consequently, the entire absence of that inestimable luxury of a tropical climate, the sea-breeze; from the air being loaded with watery vapours; and from the smell of the mud of the river and swamps, which is often, even in winter, very sensibly offensive."

"The local peculiarities in the climate and soil of New-Orleans give rise, during winter, to epidemic dysentery, and, in summer, to marsh fevers of a very rapid and dangerous form, from which the inhabitants, but particularly strangers, suffer most severely. The occurrence of such complaints, some readers, from the above detail, will be prepared to expect as a necessary consequence. Lest others, however, should be sceptical, it shall be my business, by and bye, to make this preliminary picture of the medical topography of the country subservient to discussions of higher interest, and to prove, by facts, the reasonableness of opinions.

"Hoc opus exiguum vario sermone levemus,
Perque vices aliquid quod tempora longa videri
Non sinat; in medium vacuas referamus ad aures."

OVID. *Metam.*"

We have selected this short passage, not as containing any thing very new, but as forming a fair specimen of this naval surgeon's descriptive style. We shall now confine ourselves to the diseases and their treatment.

"About the beginning of January (1815), bowel-complaints, which had previously appeared amongst the boats' crews and the fatigue-parties of the army, began to be very rife. They varied in degree of severity, from the milder symptoms of dysentery to its most aggravated forms. I may enumerate, in a few words, the symptoms of this disease. The patients, for the most part, complained of severe tormina, tenesmus, scanty bloody dejections, want of appetite and strength, pains all over them, and a disposition to vomit on taking either food or drink. The tongue was white or yellow; the eye languid; the pulse above 100, small, and easily compressed;

compressed; the skin often dry, or covered with clammy sweat, but always considerably increased in temperature.

“The causes were, generally speaking, obvious enough. The men had been rowing all day, and sleeping all night in the open boats. They had incautiously drunk the brackish water of the lakes, and had sometimes been obliged to eat their beef and pork raw, when, on an emergency, they were deprived of an opportunity of cooking it. They were often drenched with rain or with spray, without being able to put on dry clothes. Added to all this, the weather was extremely cold, particularly in the night, the thermometer before sun-rise being often as low as 25 or 26 degrees, rising no higher during the day than 30 or 38 degrees, and seldom above 50 degrees. These observations of the thermometer are repeated from my own inspection. On this occasion the cold was so intense, that several of the boats’ crews were incapacitated for some days, by pain and numbness of the lower extremities. Many soldiers of the negro regiments had their feet frost-bitten, and lost their toes by the consequent gangrene and sphacelus. Some of them even died in the camp, or in the boats, from excessive cold.”

Nothing particular occurs in the practice, which began with purges, was continued with small doses of ipecacuanha, and concluded with the several means of restoring health or assisting convalescence. In the severer cases, the author very judiciously added the use of the lancet, and we can heartily believe him when he says that he never had occasion to repent the recourse, however frequent, to that remedy. On the subject of opium, we have nothing to say against matters of fact; but experience has taught us to avoid it till all inflammatory symptoms seemed subdued. We conceive the same may be said of injections, which, as the author observes, almost the whole body of the profession have concurred in praising. If given during the inflammatory state, or at the close of hopeless cases, “the irritation occasioned by the bare introduction of the instrument, more than counterbalances any advantage.” We can add, that, if that is surmounted, the irritation from the fluid injected, however bland, adds to the distress of the author. But in an advanced chronic state of the disease, we have found all the advantages promised by other authors; and even after opiates, testacea and ipecac. have failed. We are, however, much pleased with the author’s suppositories of very small portions of opium, and with his fomentations applied to the parts, and bladders of water to the abdomen.

We shall pass over the military account of the expedition, not, however, without remarking the pleasure we felt at what we are willing to call the juvenile ardour with which the assault on Troy and the streights of Thermopylæ are introduced,

roduced, with the sage discretion of Falstaff applied to the Americans, and, last of all, "the envious wall which stood betwixt them and the approach of British vengeance.

"*Invide dicebant, paries, quid fortibus obstas?*
Quantum erat, ut sineres nos *toto corpore jungi!!*"
OVID. *Metam.*

"This sentiment burst indignantly and unanimously from our troops."

As none but the brave deserve the fair, the change of *amantibus* for *fortibus* may be admissible as a pun; but, often as we have heard of love and war, or the junction of Mars with Venus we were not prepared for the whinings of Pyramus and Thisbe on such an occasion.

Some remarks follow on the comparative healthiness of the troops during active service, and their subsequent relapse into ill health. Here, we conceive, our author imputes too little to change of season, the siege and assault being in the winter. As the warm weather advanced, he observes,

"Dysentery now put on that exasperated form in which it has so often scourged our camps and fleets; and never shall I forget the terrible force of this invisible enemy. In all cases it was a very baffling untractable disease, but in those who had previously served long in warm climates, and whose livers were thereby affected, it was almost uniformly mortal. When the disease attacked such persons, it was a subject of melancholy but curious speculation to witness the headlong course of the disease, and how unavailing any species of treatment invariably proved. It knew neither pause nor hindrance, but, like the fabled vulture of Prometheus, pursued its cruel task from day to day. Dissection always brought to light extensive visceral obstructions, particularly chronic inflammation, or abscess of the liver, with or without enlargement.

"Nothing but experience can convey adequate ideas of the ungovernable nature of this disease, or of the insidious masked approaches of its attack. Days of an indisposition, apparently trivial, sometimes occurred ere the peculiar symptoms of dysentery showed themselves; at other times, pyrexia, high or slight,* and occasionally pain in the right side, obtuse or acute, followed by frequent copious dark green stools (like *boiled spinach chopt*), slightly tinged with blood, were the form of the disease.

"* I may observe, that I never had the slightest reason to believe the disease itself, or its attendant pyrexia, to be at all contagious. I may also remark here, though I anticipate the course of the narrative, that in April and May, when the weather became hot, the character of the prevailing dysentery was rather exasperated by it; unlike the dysentery of cold climates, which is generally rendered milder, if not extinguished, by atmospheric heat.

"Griping was little complained of. There was merely a sense of weight in the hypogastric region, and a copious flux of green or dark-coloured sordes, voided without straining. The tongue was covered with a yellow fur, which, in the advanced stage of the disease, became thick, dark, and immovable, as a slab of black marble. The pulse was sharp, but weak; frequent retching and hiccup attended; and a sensation, as if all the drink swallowed, hot or cold, ran speedily through the intestines. Oftener the complaint would make its attack with the common introductory symptoms, and no pain in the right hypochondrium was felt throughout the disease, either on inspiration, or strong pressure beneath the ribs. Under whatever garb of disguise it made its appearance, disease of the liver (as I have before stated), and consequently a vitiated state of its secretions, were undoubtedly the primary cause of the mischief. Dissection of the fatal cases shewed structural derangement, and generally suppuration of that viscus. I have often found two separate abscesses in the central part of its large lobe, containing in some instances a pint of pus, similar in colour and consistence to what is usually found in psoas abscesses.

"On the villous coats of the colon and rectum, there were numerous excoriated points, with small superficial ulcers here and there, like the sequelæ of erythematous inflammation; but there were no morbid alterations sufficient to account for death; no ravages of gangrene, &c. like those related by Sir John Pringle and others, in their accounts of this malady.

"In short, to give a condensed view of the whole matter, the phenomena of the cases that recovered, as well as the morbid appearances of those that died, impressed upon my mind a conviction, that the diseased condition of the liver was the soil from which dysentery drew its malignant growth, strength, and nurture. This was the 'fons et origo mali;' by it the dysentery was excited, and only by its removal could it be removed. This double detriment—this *Janus-like* aspect of the disease, I rather think, is new to many of the profession, but I trust it will soon be widely known and acknowledged. I hope the time is not far distant, when, instead of viewing dysentery as an idiopathic disease, and tracing its seat to the colon and rectum, medical men will regard it merely as secondary to, and symptomatic of hepatic affection, and will seek its cause in a morbid condition of that important gland.* Whatever may be the mode of connection between hepatitis and dysentery,

"It seems to be one of the errors of modern medicine, to overlook in practice the liver and spleen, merely because the necessity of their functions is not so obvious and immediate as that of some other organs. That a gland so large and of such unexampled vascular structure as the liver, should have much occult influence in all diseases, might, from the mere reason of the thing, be supposed. Its secretions influence the state of the stomach, and

tery, I have no doubt that, at least in tropical climates, they are connected like cause and effect. I am unwilling to offer any hypothesis on this subject, purely because I am unable; this I confess, for I shall never chime in with that tone of affected contempt for all theories, in which presumptuous dulness so often shelters its imbecility. Those who indulge this disgusting oft-repeated cant, ("crambe bis millies cocta,") ought to be reminded, that not merely in medicine, but in all other sciences, few brilliant discoveries have been made, except by those acute and industrious men that were shapening and toiling at some untractable theory. However much all their diligence might fall short of the results they themselves fondly expected, still so much digging and delving often turned up very valuable ore, and always left the soil in a fitter state for the future labourers in the great field of improvement.

"To return to the subject under consideration, I can readily conceive, that, from disease of any gland, the fluid it secretes may acquire acrimonious properties, sufficient to injure the fabric of the passages through which it is destined to pass. We generally observe in dyspeptic complaints, or after a period of constipation, when the bile, from *remora* in the bowels, becomes morbid in quantity or quality, either that a spontaneous diarrhœa comes on, or, after a brisk cathartic has been exhibited, that the dislodged bile excites a sensation in the rectum, as if boiling lead were voided. When the state of the liver is still more morbid, may not the bile acquire the property of exciting flux, and of excoriating and ulcerating the villous coat of the colon and rectum?"

Some apologies follow for offering this theory, and the

are influenced in their turn by the passions of the mind; and many facts would lead us to believe that there is a hitherto undescribed sympathy betwixt this viscus and the brain. I am informed, from a gentleman who has practised long in India, that patients have been suddenly seized with amentia, rigors, delirium, and syncope, speedily followed by death, and that, on dissection, abscess of the liver was the only perceptible cause of such symptoms.

"The depressing passions I have seen to have a striking effect on the biliary secretion, and even to induce cholera; whereas anger, like intoxication, when habitually indulged, gives rise to chronic enlargement and obstruction of the liver. In short, the functions and sympathies of this gland, which were deservedly of so high account with the ancients, seem to be insufficiently studied by modern physicians.

"Horace, in the following lines, instead of a popular or poetical tenet, has probably expressed a curious and unexpected pathological fact.

"*Vae meum
Fervens difficili bile tumet jecur
Tunc nec mens mihi, nec color
Certa sede manet.*"—HORAT. *Carm. Od.*

paragraph closes with a sentence from Cicero, which has been quoted pretty often by others.

The respect we owe this writer, induces us to offer him a remark which we are certain will not be thrown away. We have no doubt of the *origo mali*; but some doubt of the disease itself. These evacuations resembling "boiled spinage chopt," the want of griping, and still more of straining, would have induced us to describe these evacuations as proceeding from a diseased liver, and not from the inflamed or ulcerated state of the mucous membrane of any part of the intestines, the proximate cause of dysentery. As to the remedies, we shall only remark, that, however judiciously calomel may have been given, we suspect the writer will hardly conceive it equal to the cure of abscess in the liver, or of other diseased structures which he discovered in his dissections. We suspect also that it did not prevent them, as the remedy was probably not exhibited till the disease was formed. Whether it occurred to the author late in the season, when none but the milder cases had survived, we shall leave to his recollection.

After the freedom of this remark, it becomes us to add, that in a subsequent paragraph the author is not less candid in acquainting us with unsuccessful cases under the use of calomel, than he was before sanguine in recommending it.

Some very judicious observations follow, but not very new, on the effect of scurvy.

We were much pleased with the facility with which cholera is dismissed,—in our opinion more commonly an action for the preservation of health than of a threatening aspect. Still more pleased were we with his manly objection to the whimsical system of nosology, which has not only burthened the memory of students for the last half century, but misled their judgment. Speaking of yellow fever,

"That cabalistical word *typhus*, I verily believe, has slain its thousands and its tens of thousands. The effect of a mere word is often prodigious; for, as the famous Mirabeau once said in the French National Assembly, 'words are things.' Terms signify ideas,—these constitute opinions,—and opinions lead to acts. Every body is now convinced how improperly the term Typhus is affixed to the endemic fever of the West-Indies; that it is applied with more propriety to the majority of fevers in our own country, is to me by no means clear. While I acknowledge that, in the *made-up* constitutions of artificial life,—amidst the squalid dregs of the population of a crowded and high-iced metropolis,—some cases of fever occur where the brain labours merely through sympathy with the stomach and biliary organs, and where the lancet, for several reasons, is unnecessary, or inadmissible; still, in by far the greater part, I suspect the reaction is sufficiently violent, and the

the determination to the contents of the head and belly sufficiently marked, to require, and to be greatly benefited by, blood-letting, either general or topical, or both. The fever, however, is apt to be hastily pronounced typhus, and, this sentence once passed upon it, typhus it must be; consequently, from day to day, the name of a disease is prescribed for with due solemnity and skill. To be sure, the morbid actions are fortunately seldom so concentrated as to resist the subordinate evacuations of purging and blistering; and so the patient frequently recovers in the end, after a protracted illness, which he, 'good easy man,' thinks has been quite unavoidable; charitably supposing 'all's well that ends well.' Even if we keep out of view the high moral responsibility for risks run, and sufferings protracted, which this inert treatment implies,—even if we speak of it with mildness,—we cannot, in conscience, bestow on it any other than the negative commendation, that by its effects neither the patient loses his life nor the practitioner his reputation!

“The same erroneous nomenclature which gave to ardent fever a typhoid character, in all likelihood originally produced the notion of its being contagious,—a notion which has since been attempted to be maintained by a combination of learning and sedulous talent, that, by plausible reasonings and expertly laying hold of popular opinion, has sometimes had power to 'make the worse appear the better reason.' But the affinity which such nosological arrangements suppose, does not hold. Besides the known fact that febrile contagion will not exist in warm climates, but is more readily extinguished by atmospheric heat than by any other cause, there is such a difference in the first symptoms, progress, and duration, of ardent fever from those of typhus, that all who are guided by practical views, and are not misled by too eager a spirit of generalizing, have pronounced it a totally different disease,—in fact, a disease of inflammation. Such a radical difference of character argues a corresponding difference of causation. The origin of this fever has, therefore, been attributed to causes of a local or domestic nature, because the disease itself is found to be strictly local. It only prevails in countries within the tropics, and in them only at those seasons when the thermometer ranges from 80° to 94° in the shade. It is, therefore, justly believed to be owing to the diffusion in the atmosphere of those poisonous exhalations, which are elicited by the powerful rays of a vertical sun, from marshes, from putrefying vegetable matter, or from the soil itself of tropical countries. Miasmatal poison is one of the most widely-diffused causes of disease throughout the whole province of nature; and if northern climates know less of its pernicious effects, they owe this happy exemption solely to the inferior power of the sun's heat in collecting those noxious vapours.

“Although the disease I speak of may be said to have its seat and throne within the tropics, yet in every country where the height of the thermometer is at certain seasons from 80° to 90°, fever, instead of the low type observed in high northern latitudes, assumes,

assumes, in almost every instance, a decided inflammatory character. In short, amongst the febrile diseases of southern climates, there is a uniformity of character, which, in spite of hypothetical classification, powerfully argues a community of origin and of cause. For proof of these facts, I may refer to the valuable practical works of Dr. Irvine on the Diseases of Sicily, and Dr. Burnett on the Fever of the Mediterranean; as also to a judicious paper by Mr. Boyle, published in the 6th volume of the Edinburgh Medical and Surgical Journal; and to the various reports of the American physicians.

“Thus, New-Orleans, though without the tropics, is almost every summer visited by a *four* or *five-day* fever, which has all the essential characteristics of the genuine *kausus*, and is, in fact, known popularly there by the name of yellow-fever. This heavy infliction is entirely owing to its climate and locality, (which I have already taken pains to describe),—to that profusion of marshes with which it is surrounded.”

In another passage the author has the following words in a note appended to this word *kausus*:—“Why is this word usually spelt with an initial C, since we all know it is derived from the aorist of the verb *καω, κωσω, κενωσα, uro?*” We are surprised at this prudery in one who has given so many proofs of scholarship. Is it not almost an universal change, adopted, probably, from the Latin, whose language did not possess legitimately a K, and whose C had probably always a sharp pronunciation. But the same objection might be made against *anasarca*, *cynanche*, *scirrhus*, and several other words.

We have given, though a long, by no means a full, account of this valuable paper, which, we trust, the author will enlarge into a pamphlet. He must not, however, suppose that his suspicions of the inflammatory nature of our northern fevers originate with himself, nor even his strong objections to the word *typhus*. Dr. Jackson's persecution originated in his free bleeding of patients whom he cured; and Dr. Sutton most amply confirmed this practice. Though the term *typhus* was not in use in Sydenham's time, we find him not less severe against those who were always apprehending malignity.* The first objection we recollect against nosology in general, and more particularly against the unfortunate word *typhus*, is in Adams on Morbid Poisons. “To this,” says Dr. A., “by an easy transfer, was added the term putrid fever, and afterwards TYPHUS was re-echoed from the Professor's chair to the nursery,” &c.† In short, the remainder of this paper seems almost a transcript of Dr.

* Scedula Monitoria, parag. 41.

† Adams on Morbid Poisons, 2d edit. p. 375.

Jackson's practice, and of Dr. Adams's opinion concerning contagion.

We cannot fail to offer an extract on the important question concerning the cure of fevers by calomel. If bleeding and other evacuations are sufficiently attended to in the beginning, it is, perhaps, of little consequence what the subsequent treatment may be; but a dependance on any other remedy always endangers a feeble practice, inasmuch as it furnishes the practitioner with an apology for yielding to his timidity.

"These remedies are mentioned in succession according to their relative efficiency, but, in actual practice, their application must be contemporaneous. Bleeding, purging, cold lotions to the head, shaving the scalp, and general refrigeration by the cold bath, must be drawn up together in array against the disease, and must make a combined attack. A first or even a second disappointment must not rob us of our perseverance. Courage and constancy will, in the end, often succeed against great seeming odds. In short, the violent excitement must be got under by all means, ordinary and extraordinary.

"I have never either tried or trusted to calomel as a *sialagogue* in this disease. The blind confidence in its supposed specific power has, I believe, nearly faded away before the better lights and the more speedy results which the depletory practice has afforded.* In ardent fever, where there is a morbid activity of the arterial, with a proportional inactivity (almost amounting to torpor) of the venous and absorbent systems, it is a matter of extreme uncertainty whether mercurials can find their way into the system until the paroxysm of fever is dissolved. Its action, even were it absorbed, would be rather hurtful, as favouring that deprivation of the solids, and solution of the fluids, which, with the effect—putrescency, are so much to be feared in the latter end of continued fevers. Upon the whole, longer time and trials have only given additional strength to the opinion which Dr. Saunders pronounced on the inutility of mercury in the endemial fevers of tropical countries."

* An attempt has lately been made to *clap up a match* betwixt the depletory and mercurial methods, and to call in the aid of both in the same case. The most respectable, if not the original, proposer of this incongruous union, is Mr. Johnson, in his valuable work before referred to (see note, p. 136). What table of affinities suggested this coalition, it would be vain to conjecture.

"However ingeniously devised this combined system may be, it will never stand. Like the famous image in the vision of the prophet Daniel, it is formed of repulsive materials: the *iron* and *clay* will not coalesce—cannot amalgamate—but the baser matter will crumble to dust, leaving the other part to the enjoyment of proud perpetuity. The separation, doubtless, will be spontaneous, and the sooner it takes place the better."

We believe Dr. Saunders confines his objection to the western hemisphere. In the East the use of mercury is not disputed, though even here it is now admitted by able practitioners, that, where the symptoms are urgent, bleeding is often necessary before mercury can produce any effect on the disease, or its specific action on the mouth.

Such are the outlines of this ingenious paper. The conclusion, though not strictly medical, will be read with much satisfaction by all, as a well-deserved encomium on our countrymen. It appears to have been written immediately after the battle of Waterloo, and that event is happily introduced as the climax to a long series of heroic exploits.

[The remainder of the articles in our next.]

Medico-Chirurgical Transactions, published by the Medical and Chirurgical Society of London. Vol. VI.

(Continued from p. 328.)

A Case of Lock Jaw, cured by Oil of Turpentine given as a Clyster; by EDWARD PHILLIPS, M.D.

THIS case is well worth being recorded. We think, however, the title somewhat too decided in its language. The subject was, as the writer informs with great correctness, "of a delicate and sensitive habit, always much affected with slight mental irritation;" hysterical also. In these subjects it is not always easy to form a correct judgment of spasmodic diseases. It is, however, no slight consideration, that a turpentine clyster removed so many tiresome, if not formidable, symptoms in such a subject.

Case of an extraordinary Enlargement of the Scrotum, with an Operation successfully performed for its Removal. By JOHN MADDOX TITLEY, M.D. of St. Christopher's.—
(See our COLLECTANEA.)

On the Use of Nicotiana, in Retention of Urine. By HENRY EARLE, Esq. Surgeon to the Foundling Hospital.

The first subject whose case is here related, "When about eighteen years of age, had suffered severely from gonorrhœa and hernia humoralis; from this period he dated the complaint in his urethra. He was now thirty-five: during this time he had been in a gentleman's service as groom, and had been obliged to ride a great deal. The stream of water gradually diminished in size, accompanied with frequent and urgent calls, until about two years before the present period, when, from being obliged to remain a long time on horseback, he had a retention of urine, accompanied with so much inflammation, that an abscess formed in the perineum, which burst and became fistulous. For this complaint he had been for some time under a surgeon's care, who attempted to pass bougies, but never succeeded in reaching the

the bladder. He had latterly been in the habit of passing a metallic bougie for himself, which was the probable cause of the present retention and inflammation.

“On examination, I found a firm obscurely elastic tumour, about the size of a pigeon’s egg, situated immediately on the urethra, at the lower part of the scrotum. This was about the point to which he had been accustomed to pass the instrument. The surrounding scrotum was healthy, which led me to refer the present abscess rather to the irritation of the bougie, than to any effusion of urine, which generally diffuses itself more extensively. The abscess had been about three days in forming, accompanied by great pain and fever, and he had not been able to void his urine for the last eighteen hours. I immediately made a free incision into the abscess, and let out about 3iv. of very fetid pus. I directed him to sit in warm water, and ordered a common clyster to be thrown up. As he was still unable to make water after the trial of these means, I desired him to take fifteen drops of tinctura ferri muriatis, every ten minutes, in barley water. He continued it for nearly three hours; the medicine produced nausea and head-ache, but still no water passed. I now attempted to introduce a bougie, but could not get beyond six inches; the introduction thus far was productive of great pain. His symptoms were now very urgent, for, although the bladder was not greatly distended, yet from the long existence of disease, it had probably become much thickened, and was very irritable. Apparently no alternative now remained but an operation; and, as the bladder could not be satisfactorily felt above the pubes, and the perineum was much thickened and diseased, I determined in my own mind to puncture from the rectum. Previous, however, to resorting to this *ultimum remedium*, I was desirous of trying the effect of the *nicotiana*.”

The proportion of tobacco was an infusion of two drams to a pint of boiling water; half was thrown up, and with great difficulty retained. In ten minutes the patient felt alarming symptoms of intermitting pulse, clammy sweats, extreme sickness, and faintness; the urine escaped by dribbling. The contents of the rectum were suffered to escape. The patient continued mending in all his complaints till he was obliged to leave Mr. Earle, on account of engagements in the country.

The next case was one of strictures in their worst form. After repeated attempts with the common bougie, Mr. Earle applied the lunar caustic. In the midst of his attempts, the patient was seized with so severe a retention of urine, as induced the application of *nicotiana*. The infusion was thrown up as in the other case, with much less constitutional disturbance, but with still greater success.

A third case follows, equally successful, and attended

"The tumour, when removed from the body, might have weighed about eight or ten pounds. It was of an oblong shape, loosely covered by a delicate membrane, highly vascular. On making a section of it, some ounces of a limpid fluid escaped from a cavity, the parietics of which were nearly cartilaginous; and, in prosecuting the dissection, several similar compartments were discovered, all of which contained fluid or sanious matter.

"In the further examination of this fleshy mass, our attention was arrested by the resistance which the knife met with, and which led to the discovery of the bones which I have sent you. They were connected to the internal substance of the tumour by a structure decidedly muscular. The large bone, resembling the tibia, was covered by muscle; the small bones, resembling those of the tarsus, were connected to the tibia by soft cartilaginous bands."

This is certainly a most interesting case, but we should not have been sufficiently bold to call it a *fœtus* in a child. The various substances of which the tumour was made up, rather impresses us with the idea of a process similar to hairs, teeth, and other substances, found in various parts of the body. If these more commonly appear about the appendages to the uterus, the same may be said of hydatids, and other incysted tumours.

Case of Axillary Aneurism, for which the Artery was tied below the Clavicle. By RICHARD CHAMBERLAINE, Jun. Esq. of Kingston, in Jamaica.

This aneurism was the effect of an accidental wound: the vessels were therefore probably healthy. The operation is so extremely interesting, that we shall give it in the words of the author. It was performed between three and four months after the accident.

"The patient was placed upon an operating table, with a pillow under his shoulders, and his head supported. A transverse incision, of three inches in length, was made through the skin and platysma myoides, along and upon the lower edge of the clavicle, three fingers' breadth from the sternal extremity of that bone, and terminating about an inch from the acromion scapulæ. This incision divided a small artery, which was immediately secured. A second incision, of three inches in length, was also made obliquely through the integuments over the deltoid and pectoral muscles, meeting the first nearly in the centre. The cellular membrane, and fat lying between them at the upper part, were now removed. The next step in the operation consisted in detaching the clavicular portion of the pectoralis major, and taking away the fat and cellular membrane lying over the subclavian vessels. The artery was now brought into view, and its pulsations made it clearly distinguishable from the contiguous parts; but I could not detach it, nor pass the ligature underneath it with the facility I expected

expected, from its depth. After several ineffectual efforts, I succeeded in conveying the ligature under it, by means of an eyeball probe, previously curved for the purpose, and bringing up its point with a pair of forceps, tied the artery as it emerges from under the clavicle to proceed to the axilla. The drawing of the knot was attended with little pain; the wound was closed by the dry suture, and the patient returned to his bed.

“*Evening visit after the operation.*—Pulse natural; skin cool; affected arm appears much warmer than the other; complains of pain in the wound.”

This pain continued for a considerable time, and the heat also. As the case turned out so very favourable, it may seem invidious even to enquire whether the pain might not have been relieved by bleeding. The operation, however, and subsequent treatment, does great credit to Mr. Chamberlaine. The author regrets that he was not furnished with the instruments described by Mr. Ramsden.

“February 22, (thirty-six days after the operation,) the wound healed; the aneurismal tumour is now nearly as large as a turkey’s egg, and very solid, but no pain is felt when it is roughly handled. Upon comparing the arms, the left is rather smaller; the muscular power of the arm is much improved, inasmuch as he now grasps with a greater degree of firmness and strength; temperature of the arms is the same; discontinued to visit him.—N.B. The temperature of the axilla was always ascertained by a well graduated thermometer.”

Case of Cynanche Laryngea; by JAMES WATSON ROBERTS, of Bishop’s Stortford.

This and the succeeding paper are highly interesting and important, not only on account of the formidable disease described, but the accuracy of the description, the successful treatment, and the ingenious, candid, and learned remarks of one whom, not only the public voice, but the opinion of the profession, has raised to the highest rank in the metropolis.

The subject of the case was the army-physician who a few years after died of the same disease. The description, by Dr. Roberts, is so truly that of inflammation and congestion about the head and throat, that we can only wonder any doubt could be entertained concerning the propriety of free bleeding. In the present day we may wonder still more, as some of the symptoms were analogous to the yellow fever. We must, however, reflect that the event happened in the year 1794, when the opinions of the meritorious, but ill treated, Dr. Jackson, were ill received by those who should have known better. Another objection to bleeding, equally unfounded, was the apprehension of a
gouty

gouty habit ; but the most unfortunate of all was, the suspicion of spasm. Oh ! the influence of words ! At one time they frighten us more in proportion ; as, like supposed aerial beings, they have no real meaning affixed to them, and consequently the imagination supplies every thing terrific. Thus typhus, and its associate, typhus icterodes, has thinned our armies and fleets more than the sword, or even the tropical sun. At other times words impose a law on our practice, not less absurd than those of the Medes and Persians ; which cannot, under any circumstances, be reversed. We even forget our law-giver ; for Sydenham, who first objected to bleeding in gout, only confines his interdiction to chronic gout, often advising the lancet in the acute. But most dangerous of all are those words which serve as a cover for ignorance or timidity, and for this purpose nothing is so general as Spasm.

Having made these remarks, we shall return to the author of the paper. Unawed by the wise shrugs of ignorant systematics, or even by their dereliction of the patient, he used the lancet at first indeed with becoming caution, from his respect to his brethren ; but, gaining courage from success, and no longer awed by the fears of others, he succeeded at length in carrying his patient through this formidable disease.

The remarks by the President, in the subsequent paper, are equally learned, pointed, judicious, and candid. We can, therefore, object to nothing ; but the leisure of us who are doomed to write, may enable us to produce more authorities than one so constantly engaged in practice.

First of all we cannot help recurring to a subject we have so often mentioned, we mean our objection to nosology. To what but nosology do we owe all our errors of treating fevers from the apprehension of typhus. To what but nosology do we owe the error we have just hinted, in treating gout by its name and not by its symptoms.

“ As nosology, (says the learned president,) was not in use as one of the methods of cultivating physic till our times ; as there is no where to be found, before this invention, any catalogue of all existing diseases ; and, as no author professes to treat of all known diseases, we have no means of ascertaining precisely what diseases existed and what did not, at any particular period. Works of nosology, therefore, even though founded on a vicious system of arrangement, possess great value merely as comprehensive catalogues of diseases, and as affording scope for accurate description and discrimination.

“ The infrequency of this disorder seems to be a main reason for its having been so little noticed, and it seems to be a wise provision

vision of nature that it should be so rare. If the glottis were by nature as liable to inflammation as the tonsils, the human species would have difficulty in maintaining its existence.

“ We have, in the present case, an example of its real nature having been overlooked, for the first seizure passed at the time for the modification of a common sore throat. The casual coincidence of two eminent physicians in the metropolis having been affected with it about the same time, has led to an investigation which has established its specific nature. We seem now, therefore, to have a very complete nosology of the diseases of the throat; for the *Cynanche tonsillaris*,* the most common species of sore throat; the *C. Pharyngea*, or quinsy; the *C. Parotideæ*, or mumps; the *C. Trachealis*, or croup; and the *C. Laryngea*,† now under consideration, admit of descriptions as specifically defined as any objects of natural history.

“ The number of cases of this last species (the most rare of them all) which have already found a place in our Transactions, affords a striking proof of the high value of such ample repositories of facts brought so closely and rapidly together, as to throw the most interesting and instructive light upon each other. When single cases of any disease, particularly a rare one, lie scattered in different works and at long intervals of time, the advantage of comparison and induction is in a great measure lost to the practitioner, who has to decide promptly on his measures; and it is hoped that the advantageous manner in which these cases have been brought forward, will lead to a more successful treatment in future, for it is a melancholy and mortifying truth, that of these eight cases six have terminated fatally.”

When we meet with such a passage from one almost born in a dissecting room, educated in hospitals, and above all, who has devoted his whole life to a profession in which, for more than twenty years past, he has been consulted in most acute cases; a variety of reflections occur, but the most

* “ The ancients do not include this under the appellation of *Cynanche*, or *Angina*. A difficulty of respiration, agreeably to the etymology of these words, was an essential character of them. The Greek and Latin authors call the *C. Tonsillaris*, merely an ulceration of the tonsils. They would, for the same reason, have excluded the *C. Parotideæ* from this genus; but there is no allusion to this disease in any ancient author that I know of.

† “ There is a variety of the *C. Laryngea*, of which three cases have come under my observation. It consists in a state of chronic inflammation and suppuration of the larynx. They all proved fatal; and, two of them being inspected after death, *pus* was found in all the interstices of the muscles, bones, and ligaments, and the organization of the whole considerably impaired. From the similarity of the symptoms, I inferred the third to be of the same nature.”

striking of all is, that there must be some revolution in the diseases of mankind, dependent, as far as we can judge, on what Sydenham imputed to the constitution of the air or season.

We shall first, therefore, show that an inflammatory disease, requiring similar remedies, and equally dangerous if those remedies are not promptly applied, was well known to the ancients and to Sydenham; and next, endeavour to maintain our opinion, that nosology, if not injurious, is at least so in many of the discriminations above alluded to. Angina was the term generally applied to it. The Greeks, who were always fond of compound words, used the term *Συγγυχη*, which Aretæus considers a corruption of *Κυγγυχη*, and derives it from the frequency with which dogs seem to breathe with difficulty. Celsus refers to the divisions made by the Greek writers; but, according to his accustomed brevity, enumerating nothing more than is absolutely necessary. From this little we learn, that the disease was considered serious in proportion as the parts in sight were free from inflammation or swelling. In these cases he considers the danger not less than in tetanus, and advises blood-letting, though the patient should not be plethoric. His caution, *si vires patiuntur*, probably refers to the more advanced stage of the disease, in which nothing can be done. He proposes also cupping under the chin, and about the fauces; and afterwards adds the application of hot salt in bags, as a most efficacious remedy. There is nothing in this that ought to be overlooked in our days.

Aretæus is not less alarmed at a disease, the sudden effect of which he compares to the pestilential vapours arising from groves or caverns, or even to poison. Both these writers are equally careful in distinguishing this disease from inflammation in the anterior parts of the internal throat, or posterior parts of the mouth, as the uvula and tonsils. Vansweiten informs us (we have not taken the trouble to examine for ourselves) that Aegineta makes a division of cyanche, paracyanche, synanche, and paracyanche. All of these writers describe one form of the disease as particularly fatal.

But we need go no further than Sydenham to trace the rapid and dangerous progress of angina. He gives, indeed, no nosological division, considering the inflammation as attacking every part of the throat; but instances the larynx, and describes the danger of suffocation. His practice is such as has been so judiciously recommended by the author of the paper, viz. early, free, and repeated bleeding and purging. In his monita he adds a large strong blister-plaster, not immediately

immediately over the part affected, but to the back. It is not a little remarkable that Sydenham should propose bleeding the vessels under the tongue, which makes it probable that he had read Aretæus, though he rarely brings forward his learning, unless to defend his practice.

Having made these free remarks, we shall conclude with our former observation, that there seems something in the constitution of the air which produces its effect on diseases. No one who reads the works of Dr. Fordyce, written at the close of a long and diligent practice, can suppose that he saw diseases in the same form as at present. We find him fearful of bleeding, and prescribing bark in rheumatism and in every form of erysipelas. This may account for the few instances we meet with among the writers immediately preceding us, of a disease so highly inflammatory, and so suddenly dangerous or fatal as this kind of sore throat; and indeed for the frequency and rapid progress of many other inflammatory diseases. It should, however, in our opinion, lessen our respect for nosology; lest it should lead the young practitioner to prescribe for names and not for symptoms.

Account of a Case of Croup, in which the Operation of Bronchotomy was successfully performed. By THOMAS CHEVALIER, Esq. &c.

If inflammation of the larynx has been less noticed, we are obliged to the northern physicians for first pointing out to us a disease in the trachea, which is now so common that we cannot fail to express our surprize it should have been so long unnoticed. Probably, however, like the subject of the former article, it may have encreased from the same causes as have encreased the number and violence of other inflammatory diseases. As the disease seldom fails to affect the larynx with the trachea, it may, perhaps, hereafter be found that it no way differs from cynanche laryngea, excepting in the age of the subject; the effusion of lymph, or adhesive inflammation, being more common in the earlier periods of life. We offer this only as a suggestion, and hasten to give due credit to the courage and skill of the operator on so delicate a part. It is the more necessary that this case should be recorded, because it shows that after the coagulated lymph or membranous substance, which characterizes the disease, is rejected, the patient is by no means secure. The complaint is only changed to bronchitis; and the danger of suffocation from another cause remains, especially in children, who are less ready than grown people at assisting themselves by expectoration. This patient was seven years old.

“ On the afternoon of Wednesday the 27th, (the day after the membranous substance was thrown up,) the difficulty of breathing greatly increased, the countenance grew livid, cold sweats came on, and he appeared sinking. He was, nevertheless, perfectly sensible. No chance of his recovery now seemed to remain, unless it were by opening the trachea, and I was applied to for this purpose. I exposed the trachea just below the cricoid cartilage, and divided two of the cartilaginous rings vertically, cutting afterwards transversely in the interstice between them. About an ounce, or an ounce and a half, of a reddish brown and frothy mucus gushed out through the opening; and, by a tolerably full inspiration, which presently followed, the child was enabled to cough up more of the same kind. The breathing became immediately relieved, the cold sweat ceased, and the countenance in a short time resumed much of its natural appearance. The pulse was 160. On the morning of the 28th the breathing was much improved: pulse 144. He was directed to take half a drachm of oxymel of squill every hour in a little camphor mixture; and four ounces of the camphor mixture were to be employed as an enema, several times in the course of the day. In the evening his breathing had become quite easy, and the cough much less sonorous. On the 29th he brought up with a slight cough, about a dessert spoonful of tough mucus, but it did not appear that any had passed through the wound. He was better in all respects, and from this time his recovery was gradual and uniform.”

Practical Observations on the Cure of Wounds and Ulcers on the Legs, without Rest; illustrated with Cases. By THOMAS WHATELY, Member of the Royal College of Surgeons in London. 2d edit. 8vo. Callow. London, 1816.

THOUGH we have not found any considerable additions in this new impression, yet, as the first was only slightly noticed, the importance of the subject, and the respectability of Mr. Whately's name, induce us to enter more minutely into that gentleman's claims to the improvement in this branch of surgery. We are the more anxious to do this, because, highly as we have estimated his merits, it is only in his Treatise on the Affection of the Tibia, induced by Fever, that we have given him full credit for a considerable share of invention.

The preface commences with remarking, that Wiseman was well acquainted with the advantage of pressure in ulcers of the lower extremities, “ The use of the laced stocking (says Mr. W.) was recommended by him for this purpose; nor can there be any doubt, that the good effects of it in his hands were very manifest. His ideas, however, seem not to have been much regarded by succeeding surgeons. We find

find but little said by the writers on surgery, on the effects of pressure in the cure of ulcers on the lower extremities, previous to the appearance of Dr. Underwood's treatise. Yet I am aware, that there always have been practitioners who were acquainted with the importance of this mode of treatment, and have adopted it in their practice. I had myself an opportunity of seeing the extraordinary success attending it, during my apprenticeship in the country. It is matter of fact, however, that the practice is very far from being general. Even in one of the latest publications on the subject, and this too by a surgeon of the first eminence, the effect of pressure is not much relied upon for the cure of these complaints. It is indeed there stated in several passages, not only that no benefit is derived from compression in several species of these ulcers, but that many ulcers are rendered worse, more painful, and more unhealthy in their appearance, by its use.* That there are certain conditions of an ulcer, which will not bear compression, I have allowed, and have endeavoured to point out the proper treatment, to bring on a fit state for the application of that pressure; but that an experienced surgeon should pass over so slightly this most essential part of the cure, and even speak of it as *frequently* injurious, is a circumstance hardly to be attributed to any other cause, than that of a careless and ineffectual application of the bandages. For my own part, having now been for twenty years constantly in the habit of treating a very large number of these cases, I can speak so confidently of the good effects of pressure, properly applied, that I can venture to affirm, that he who doubts of its efficacy has never given it a fair trial.

“ In the cases which are added to this essay, very little variety of dressing was used; the cure was almost always trusted principally to the pressure made on the limb, under the exceptions particularly specified in the work. My success has been so uniform, that I cannot but be anxious to see this practice become established, and generally followed. Nothing but a conviction that in promoting this end, I am really doing an important service to my fellow-creatures, could have induced me to appear before the tribunal of the public, conscious as I am of my incompetency as a writer. But may I not hope, that the plain tale of a practical man will be heard, though not told with the graces of elegant language.

“ In whatever manner this attempt be received, I cannot

“ * See Home on Ulcers of the Legs.”

doubt that the practice here recommended must, in the end, prevail, notwithstanding it has this great obstacle to contend with, that surgeons must condescend, for the most part, to apply the bandages with their own hands. The clumsy and ineffectual manner in which this business is too frequently done, can never be expected to produce the desired effect. I am certain that if the necessary pains be taken, according to the directions here laid down, such effects will uniformly follow, as must convince the unprejudiced mind, that to have recourse to the operation of tying varicose veins, and the application of a great variety of remedies, can be *very rarely*, most probably *never* necessary. I can safely declare, that all such cases as are described by Mr. Home* to be cured by this operation, have readily yielded under the proper management of pressure alone."

The author next adverts to Mr. Baynton's new method of treating with plaister bandages, which, it appears, was published whilst the first edition was in the press. After paying every proper compliment to that gentleman, Mr. W. concludes by a preference of his own plan, on account of the facility with which rollers are applied, their cheapness, and greater cleanliness.

It must be admitted, that, judging by the general, we may add almost permanent, success of the various plans, if Sir Everard Home's has fallen into entire disuse, Mr. Baynton's has retained its ground for a length of time, and with an increasing celebrity, which seems to insure its success. Mr. W. very feelingly regrets the tardy progress of both, particularly of his own, when he complains that the custom of confining patients with sore legs to an horizontal posture is still prevalent in hospitals, where their room is so much more wanted for other much worse cases; and that, where pressure has been adopted, it has been principally on Mr. Baynton's plan. This preface concludes with a paragraph which cannot be too generally attended to.

"We are told, that, in Paris, no student is admitted to the office of a dresser at any hospital, without having first given proof, in an examination, of his possessing industry and abilities sufficient to qualify him for so important an office. It would be well if such a regulation were enforced in London, where a dresser requires no other qualification than the ability to pay a certain sum of money. The general adoption of the method of cure recommended in this treatise, with the assistance of qualified dressers, would afford a great relief to the hospitals, by dressing as out-patients numbers

"* Ibid."

who are now confined to the house, and occupy that room which is wanted for more dangerous cases. By these means students would become more adroit in this important branch of surgery; and the knowledge of the most successful management of these troublesome cases would be more generally diffused, to the credit of the profession, and the unspeakable advantage of the suffering patients."

To these remarks we shall take the liberty of adding one more. The additional fee expected by the hospital surgeon for a dressing pupil very much confines that department to young men of some independent property or expectations. These have also London connections, and superfluous cash, either of which is a sufficient inducement to engage in the dissipation of this great town. Hence their hospital duty is either neglected, or transferred to a more prudent or poorer student. Though the patients may not seem to suffer by such a change, yet many inconveniencies arise from the unsettled state of the business. When the surgeon goes round, it is in vain for him to make any inquiries of the person to whom he committed the charge of his patients, and who, unwilling to acknowledge his own inattention, can neither ask the opinion of his principal, nor satisfy him concerning the probable causes of those changes which he perceives in some of the most interesting cases.

In this preface to the second edition, the author remarks that he has not added to the number of well-authenticated cases, because he conceived the former were sufficient; otherwise he might have swelled his book by thousands of fresh histories. Of this we have no reason to doubt; and few of our readers will require more than 150 cases for the confirmation of a practice much more novel than the present. At the end of these is an appendix, in answer to some remarks contained in a second edition of Mr. Baynton's work. We shall not enter on this controversy, from the respect we bear to both the gentlemen, and because we wish our readers to try both plans, before they make up their minds; or perhaps the different states of ulcers, the difference of constitutions and of habits of life, and the season of the year, may induce a preference for one or the other, according to the above-mentioned circumstances.

A postscript follows, which we shall transcribe—

"In reprinting the preceding essay, the author forgot to insert, in its proper place, a note respecting a slight alteration in the treatment of some wounds and ulcers on the legs. In different parts of this work it is observed, that when these complaints are attended with much inflammation and pain, it is extremely improper to advise the use of pressure, or to exercise the limb; and that

that rest, the horizontal position, and emollient poultices,* during this period of the disease, become absolutely necessary. I intended to have added, that when the condition of the wound or ulcer has been improved by this treatment, though not sufficiently so to render it as yet safe to apply the full pressure of the compresses and roller as before directed, or to permit the limb to be freely used, experience, in a very large number of cases, has convinced me, that a moderate degree of exercise may be allowed, not only without detriment, but sometimes with manifest advantage, provided the limb be properly supported by the roller only, without compresses, applied over the emollient poultice and mild dressing, so as to make a gentle and equable pressure upon the whole limb, from the toes to the knee, making the poultice, by this treatment, to act as a gentle compress. Most persons afflicted with these complaints, whatever may be their station in life, are extremely desirous of being relieved, as soon as possible, from a strict confinement; and such I have, for many years past, been in the habit of indulging with the moderate use of their limbs, when supported in this gentle manner, till the parts will bear full compression. It is absolutely necessary, in a great number of irritable sores, attended with inflammation, to persevere in this plan of treatment for a considerable length of time; and even after the inflammation is so far subdued that the roller can be advantageously applied with compresses through the day, it will be useful, for a short time, to have recourse to poultices during the night.

“By a careful attention to these and other rules laid down in the preceding essay, many of the prejudices against compression will be obviated. I have never seen a case where it may not be used, if well timed, to the greatest advantage.”

Such are the principal additions to this new impression; they are not sufficient to render it necessary for those who are in possession of the former; but we need not urge the utility of the entire work to any of our readers.

MEDICAL AND PHILOSOPHICAL INTELLIGENCE.

ROYAL SOCIETY.—On Thursday, the 21st of March, a paper by SIR EVERARD HOME was read, on the mode of action of specific medicines. From experiments already made it is known that poisonous bodies, whether mineral or vegetable, do not produce their effects upon the body till they are introduced

* Mr. W. prefers the common poultice of bread, milk, and lard, or salad oil, to the linseed meal. His reasons are very just, but, on account of the difficulty of making the domestic poultice of a sufficient consistency, we conceive a small addition of dry linseed meal is extremely useful.—EDIT.

into

into the circulation ; and the effect always follows whenever they are introduced into the circulation. Ipecacuanna injected into the jugular vein produces instant vomiting, and opium immediate drowsiness. We know at present only two specific medicines ; namely, mercury for the venereal disease, and the eau medicinale, which is a vinous infusion of colchicum autumnale, for the gout. It is well known that mercury produces its effects only when introduced into the circulation. The author gives an account of several experiments with the eau medicinale on himself and on dogs, which shows that it requires likewise to be introduced into the circulation before it produces its effects.

Institute of France.—A shower of stones has fallen this year in the neighbourhood of Langres, with all the usual circumstances. M. PISTOLLET, physician in that town, has collected some of them. They are quite similar to other stones of the same origin, except that their fracture is perhaps a little whiter.

M. VACQUELIN, who had been charged last year with the examination of the aerolites of Agen, has presented some reflections on the state in which the principal elements occur in this sort of stones. A portion of the silica appears to him to be in combination with the magnesia. Sulphur is present, united to iron ; for the mineral gives sulphureted hydrogen, when dissolved in the acids. As to the chromium, it appears in a separate state, and sometimes in particles so large as to destroy all idea of combination.

Identity of Galvanism and the Nervous Influence vindicated ; by Dr. WILSON PHILIP.—In the account in the *Annals of Philosophy*, of that part of a paper of mine which was read before the Royal Society on the 25th of last month, it is observed, that I go rather further than my experiments will warrant, when I conclude that the nervous influence and galvanism are the same. It is clear, it is observed, that the section of the nerve interrupts the nervous influence ; and that my experiments, supposing them correct, show that galvanism puts an end to this interruption, but that it may do this merely by serving as a conductor to the nervous influence. It is impossible to receive a perfectly correct idea of all parts of a paper of this kind, from hearing it once read. From the way in which the experiment was made, there seems to be no room for the explanation here pointed out ; for the cut ends of the nerve were so far from being applied, or even made to approach each other, that the upper portion was wholly neglected, and the lower portion drawn out, and coated with the tin-foil.

It has been remarked, that this experiment should have been made on some other animal than the rabbit. This suggestion comes from a quarter of such authority in physiological questions, that I have felt myself called upon to attend to it. I have repeated the experiment on dogs, and found the result, both with regard to the stomach and lungs, in all respects the same as in rabbits.

bits. The galvanism was not applied in such force as to occasion any expression of pain, which it does if the power of the trough is more than occasions a slight twitching in the fore legs. From these experiments, as it is observed in the paper alluded to, one of two inferences appears to be unavoidable; we must either admit the identity of the nervous influence and galvanism, or that there is a power different from the nervous influence yet capable of performing its most complicated functions, a supposition, I think, much harder to be granted than the other.

Both this experiment, and the experiments on rabbits, relating to the same subject, were made in the presence of several medical gentlemen, who expressed their entire satisfaction in the result.

Worcester, March 5, 1816.

Annals of Philosophy.

By Mr. FIELD'S report (in the Med. Repos.) it appears, that notwithstanding the severe, dangerous, and even fatal cases which have occurred all over the metropolis, the boys in Christ's Hospital have been unusually healthy. Were this exemption confined to mortality, we might impute it to the judicious and early treatment which the inhabitants of that establishment derive from their resident apothecary; and probably something may be attributed to that cause, as we meet with four cases of Cynanche trachealis, to the sudden arrest of which only we can impute the mildness of so many.

The cases of Cynanche parotidæa, nine in number, occurred all of them "nearly on the same day." "The infectious nature of this malady," continues the ingenious writer, "rendered it necessary to take every proper precaution to prevent its extension; which was accordingly done; and, as far as the short time now elapsed will justify the conclusion, there is great reason to believe that it will be attended with the desired effect." This attention to dates is highly important. There cannot be a doubt that this candid and acute observer will readily agree with us in the great probability that all the boys derived the disease from the same source, and not from each other. This has so often happened on-board ship, where no intercourse could be traced, that it is at least doubtful whether the disease is excited by the constitution of the influence, or by a contagious property.

Our readers will be anxious to learn the infantile history of Dr. RODMAN'S little élève, born within the fifth month of gestation.

"As several authors," observes Dr. R. "who give the size and weight of the fœtus at different periods, are inconsistent in their statements, it is necessary, in the first place, to consider the marks afforded on this subject by the catamenial discharge, since these inconsistencies must arise from some mistake.

"When the periodical appearance of this discharge returns during the influence of healthy functions, the proof that the uterus is not impregnated is satisfactory; and, when the health is good, the stoppage of this discharge is a strong proof of pregnancy.

"Along

“ Along with turgescient feelings in the mammæ, and sensations of a nature peculiar to the pregnant state, the stoppage alluded to is the only mark on which mothers can rely. Hence, if a medical man be not consulted till two, three, or more months have elapsed, it is obvious that he has no other grounds by which to discover the exact term of gestation in such instances, but what he derives from the mother’s history, her assertions, her appearance, and her former habits of exactness. On this account it is easy to understand how an accoucheur may be sometimes deceived, and how the tables of fœtal dimensions may often be erroneous.

“ With respect to the mother of the child in question, she is tall, robust, and healthy, and was never subject to those irregular affections which derange such calculations; and, besides, her knowledge of the time of her former gestations was particularly accurate. At every new interrogation she is consistent, and modestly evasive, though her reasons are decisive; and she does not hesitate to affirm, that the period of gestation already mentioned was rather within the 19 weeks, as has been stated.

“ But there are other occurrences which tend to corroborate what she affirms.

“ Every accoucheur must have observed that the weight and length of children born at the full time are variable; but especially the weight. On looking into my journal of newly born children come to the full time, I find it stated that one child weighed fifteen pounds, while the weight of others was irregularly less. In whatever way it may be explained, this variation of weight is undeniable; and it is no stretch of propriety, perhaps, to grant, that according to the constitution, circumstances, and health of the mother, one fœtus at a given period differs proportionally from another fœtus at the same period.

“ If it be probable that a tall, robust, and healthy female, in the vigour of life, shall have children of greater dimensions and weight, than one who is little, delicate, and unhealthy, it is equally probable that statements should contain the characteristic descriptions of the mothers before they be accounted conclusive in their proportions of the fœtus. By allowing that such statements are defective in this respect, the defects will be excusable: and the knowledge of the mother, whose opinion is the point at issue, will be admissible.

“ My motive in making her son’s case known, was a wish to check those unqualified assertions which are too commonly heard, that a child born at certain premature periods cannot live; such as at the sixth month, &c. And if professional men encourage this opinion, what can be expected from those that are not of the profession?

“ Assertions of this nature have undoubtedly led to the death of premature infants in many instances. They seem not only to be useless, but to supersede the exertions which might save the children; and become grounds of excuse for heedless treatment, by which they are exposed to destruction. Death would have been the speedy fate of this child in the same way, had I not opposed

this assertion at his birth, and, by insisting that it was possible he might live, prompted the activity of all the necessary attentions."

"The little gentleman who has given rise to these remarks is still healthy. He became fretful three weeks ago, and would not sleep, but cried for two nights. The same cotton wool which covered his head had been too long used—new wool was put into its place and he soon got drowsy—since which he has slept at the usual times—his crying has ceased, and he has continued well."

We think it our duty, after the observations we made on Mr. FLETCHER'S case (see vol. xxxiv. or No. 202, page 515), to remark, that, after a very diligent inquiry, we have met with another well-authenticated account of the re-production of a nail after the excision of part of a finger. In both, however, we are a little doubtful whether the root of the nail might not have remained. The subject whose history we last learned was very young at the time the accident happened.

The dreadful nature of the disease to which the subsequent article of intelligence refers, obliges us to offer it to our readers. If not altogether satisfactory, it may lead to some further attempts at subduing the heaviest affection to which the softer sex is liable.

From the Gottingen gelchrte Anzeigen.

"Professor OSIANDER, seven years ago, communicated to the Royal Society at Gottingen his method of cutting out the cancerous part of the uterus, (not the whole uterus, as some have erroneously imagined,) and thus to effect a cure of the cancer uteri. Though this operation, which he had performed twenty-three times, always turned out successful, yet, in many cases, a very material difficulty occurred in mollifying the indurated remainder of the uterus, and reducing the same to its natural form. A few years ago, he, however, conceived the idea of combining, in such cases, both the inward and outward application of the Aqua Laurocerasi, with the operation. This remedy operated surprisingly in different cases, after the cancerous part was cut out, in mollifying the scirrhus remains, and in the re-production of a sound substantia uteri; but he never ventured to suppose that a complete scirrhus uteri, with all the symptoms of a near approach to an open cancer, such as fever, local pains, and frequent bleedings, might be cured by the above-mentioned remedy, without any operation, till he made this experiment in the beginning of 1815, in the case of a woman of weak constitution, who, from a scrofulous cause, in and after an abortus habitualis, had got a fully indurated and thickly-swelled orificium uteri, a rough and easily-bleeding uterus, attended with spasms, a febris lenta, local pains, and frequently returning hæmorrhage. This woman, greatly afraid of the operation, requested him to try every possible means without it; to which he agreed; and began the experiment by applying the Aqua Laurocerasi only outwardly, but soon added also the inward, though very moderate use of the same, together with other requisite tonic and antispasmodic remedies, according to circumstances.

stances. This application surpassed his expectation: the swelled and indurated uterus grew softer in a short time, and by degrees regained the natural form and size. The hæmorrhage ceased entirely, and the natural order of the menses again took place. The cure was begun about the middle of Nov. 1814, and was already, in the middle of Jan. 1815, so successfully completed, that the woman, to this very day, almost a twelvemonth after, is free from this complaint, and enjoys perfect health. The efficacy of this remedy naturally consists in the very powerful operation of the prussic acid contained in the Aqua Laurocerasi, the application of which requires, however, the utmost caution."

Dr. ADAMS will commence a summer Course of Lectures on the Institutes and Practice of Medicine early in June.

Dr. CLUTTERBUCK will begin his summer Course of Lectures on the Theory and Practice of Physic, Materia Medica, and Chemistry, early in June, at his house, No. 1, in the Crescent, New Bridge-street.

Seventh Report of the General Committee of Associated Apothecaries and Surgeon-Apothecaries of England and Wales.

Crown and Anchor Tavern, April 24th, 1816.

THIS Committee never having ceased its attention to the objects for which it was appointed, begs leave to detail its proceedings, since the last Report of January the 10th, 1815, which were published through the medium of the Medical Journals.

It is sufficiently known, that an Act, solicited by the Society of Apothecaries, passed last session, "For the better Regulating the Practice of Apothecaries throughout England and Wales."

During the passing of the Bill, many of the amendments to which former Reports of this Committee refer, were introduced; many alterations were also made in it; and, after it had passed both Houses, owing to some amendments introduced by the Peers, it was rejected by the Commons; and a new Bill, *pro forma*, was obliged to be brought in, and again be carried through Parliament. This unusual circumstance produced so much delay, that there was scarcely time to pass the second Bill through the regular stages before the close of the session.

Early in June, this Committee received a copy of a Bill "For Enlarging the Charter of the Royal College of Surgeons, &c."

The Committee approved of the principle of this Bill, generally; but objected to it—1. That it empowered the College to demand whatever sum it pleased for a diploma—2. That it continued the annual contribution levied on Members of the College residing within seven miles of London—and 3. That it contained no provisions for the regulation of the Practice of Midwifery.

The Committee, therefore, petitioned against the Bill; the effect of which was, that the College was not to exact any larger sum or sums than paid at present for diplomas, or as contributions; and that some provisions concerning Midwifery were introduced. It was the wish of the Committee, that a Board of Examiners in Midwifery should be appointed by the College. But this was positively and successfully resisted. Finally, a provision was inserted, that no male person should, *in future*, be allowed to commence practising Midwifery, for lucre or gain, except Members of the College of Surgeons, (saving the rights of the College of Physicians.) To this, as a compromise, the Committee yielded; upon the conviction, that if none hereafter were suffered to enter into this practice

but those who had received a medical education, and had been examined touching their knowledge in Anatomy and Surgery, there could remain no doubt that the public would be effectually guarded against the intrusion of ignorant pretenders; nor was it likely that any Member of the College would exercise the Art of Midwifery without previous instruction. The Committee of the House of Commons would not allow any mention of female midwives. This Bill meeting some obstruction in the House of Peers, and the lateness of the session preventing the last clause being obviated, it was withdrawn.

It has been introduced into Parliament in the present session; but again meeting with objections, the College did not persist and press for a division on it.

There is no official authority for mentioning it, but the Committee, from private information, have some reason for believing that another Bill will be arranged, founded upon more enlarged and disinterested views.

This Committee did not expect that an Act so novel in its principles as the Apothecaries, would be free from errors; indeed many of its defects had been pointed out in the debate which took place upon it in the House of Peers. Some of these unquestionably resulted from the confusion attendant on the untoward circumstances with which the Bill was passed, and the time before the session would close did not admit of remedying them. During the recess, the Committee saw with extreme pain, that there were more errors in the Act than were at first observed; and that its operation was in some parts retrospective, and consequently unjust.

As the Act had been taken out of the hands of this Committee, and was solicited by the Society of Apothecaries, the former entertained no doubt that the latter would bring in a Bill this session, to amend whatever errors existed in it. The Committee waited the meeting of Parliament; and, finding time passing on without any movement of the Society for the purpose, conceived it an indispensable duty to apply to that body for an explanation of its intentions.

The following resolutions were therefore passed and transmitted to the Society, with the request of an early answer,

(C O P Y.)

62, Gower-street, March 23d, 1816.

GENTLEMEN,

Pursuant to a resolution of the General Committee of Apothecaries and Surgeon-Apothecaries of England and Wales, I have the honour to present to you a copy of the Resolutions passed at a Meeting held on the 19th inst. to which the Committee request an early answer.

I have the honour to be, Gentlemen, your obedient humble servant,

G. M. BURROWS.

*To the Master, Wardens, and Court of Assistants,
of the Society of Apothecaries.*

At a Meeting of the General Committee, held on March 19th ult. it was Resolved,

“That, as the provisions (see sections 14 and 15) of the Act “for the better Regulation of the Practice of Apothecaries” have a retrospective effect, in consequence of certain unexpected alterations being made in the Bill, which effect was not contemplated by the framers of that Bill, and which has been found extremely prejudicial to the interests of numerous Medical Students and others;

Resolved,

“Therefore, that a respectful appeal be made to the Society of Apothecaries, to apply to Parliament during the present Session, for the purpose of making such amendments in the Act as shall obviate its retrospective operation.

To

To which this communication was returned :

SIR,

Apothecaries' Hall, 9th April, 1816.

I am directed by the Committee appointed by the Master, Wardens, and Court of Assistants, to whom your letter of the 19th of March, together with two Resolutions of your General Committee, were referred, to acknowledge the receipt thereof; and to inform you that the same will be taken into consideration at the next meeting of the Committee.—I am, Sir, your obedient humble servant,

J. BACKLER, Clerk.

To G. M. Burrows, Esq.

This proving very unsatisfactory, the Chairman was requested to apply for a definite answer; when he again wrote—

GENTLEMEN,

62, Gower-street, April 17th, 1816.

At a Meeting held this evening of the General Committee of Apothecaries and Surgeon-Apothecaries of England and Wales, I was requested to communicate to you, that the Meeting was adjourned to this day week, for the purpose of then receiving and taking into consideration an answer to the Resolutions of the Committee of the 19th ult., and which I had the honour of transmitting.

And I am further instructed to request that the said answer be a definite one to the subject of those Resolutions.

I have the honour to be, Gentlemen, your obedient humble servant,

G. M. BURROWS, Chairman.

To the Master, Wardens, and Society of Apothecaries.

On the 19th, the following was received :

SIR,

Apothecaries' Hall, 19 April, 1816.

I am directed by the Bill Committee of the Court of Assistants to transmit to you a copy of their Resolution of the 16th instant.—I am, Sir, your obedient humble servant,

J. BACKLER, Clerk to the Society.

To Dr. G. M. Burrows.

At a Meeting of the Bill Committee appointed by the Court of Assistants held at Apothecaries' Hall, on Tuesday the 16th of April, 1816.

The Committee having taken into consideration the Letter addressed to the Court by Dr. G. M. Burrows, with the Resolution of the General Committee of Apothecaries and Surgeon-Apothecaries of England and Wales, calling upon them to apply to Parliament for an amended Act,

Resolved,

“That it does not appear to this Committee that any such practical inconvenience has arisen from the alledged defects of the Act of last Session as to induce this Committee to recommend to the Court of Assistants any immediate application to Parliament.”

As it was well ascertained by your Committee, that the Society of Apothecaries was fully apprised of the *practical inconveniencies that had arisen from the alledged defects* in the Act, it was clear, from this Resolution, it was determined not to apply to Parliament, this session at least, to amend it.

This decision the Committee exceedingly laments. Deeply impressed with the greatness of the injury sustained by several classes of the medical profession, from the errors in the Act, and hence its inadequateness for the objects intended; and, sincerely deploring the consequences, it feels bound to adopt every means in its power to seek that redress the extent and urgency of the evil demand. But, previously to any other steps being taken, this Committee requires more specific information than it yet possesses, of the injuries and inconveniencies experienced from the operation of the Act.

Much information has been received by various Members of the Committee on the subject of the Act, but not in that capacity, but as private individuals. None of the District Committees have communicated with

the

the General Committee since the publication of the Sixth Report of January, 1815; nor have any individuals addressed it.

This Committee is consequently without official data on which to found any further proceedings, that may lead to the attainment of that object which it avowedly professes—the amendment of the Apothecaries' Act.

The Resolution annexed,* which has been advertised very generally, it is hoped will procure the necessary documents, and evince to the profession, that this Committee is ever alive to the interests of its constituents, and will never abandon a trust so honourably bestowed, and with so much confidence continued.

G. M. BURROWS, Chairman.

To the Editors of the London Medical and Physical Journal.

GENTLEMEN,

I DID myself the pleasure of stating to you, last year, my intention of reviving the mode of teaching botany, as used to be practised by my late friend and partner Mr. William Curtis; and having made an experiment, and finding it likely to answer my own purpose, and that of the gentlemen who honoured me with their attendance, I have been induced this season to commence the same again; and, as it may be useful to some of your readers to know at what season the different plants are to be found in bloom in the neighbourhood of London, I propose to give you for insertion every month a list of such as we meet with, and their places of growth. The present spring is uncommonly backward, a circumstance which will be worth recording for future comparison. As I propose giving you the same kind of list for two years, it will be a subject of curiosity to observe the contrast: nothing will point out the difference of seasons more than the period of plants blooming, and at the same time afford you a complete calendar of flora for future reference.

I met the gentlemen comprising my class on Tuesday the 23d instant, at the Red House, Battersea Fields; and the following scanty list of plants was all that we met with, and consequently all that was in bloom at that season.

Tussilago Petasites—Butter burr.

— *farfara*—Coltsfoot.

Glechoma hederacea—Ground ivy.

Veronica hederifolia—Ivy-leaved speedwell.

— *agrestis*—Small blue ditto.

Caltha palustris—Marsh marigold.

Draba verna—Whitflow grass.

Bellis perennis—Daisy.

Charophyllum sylvestre (but just out)—Cow parsley.

Cardamine pratense (scarcely a petal open)—Ladies' smock.

Ranunculus Ficaria—Pile-wort.

Senecio vulgaris—Groundsel.

Thlaspi Bursa Pastoris—Shepherd's purse.

Salix fragilis—Crack willow.

— *alba*—White ditto.

— *vitellina*—Golden ditto.

— *riminalis*—Ozier.

Betula alba (scarcely out) White birch.

Our next excursion will be on Friday the 8th instant, at the Red House, Battersea, at ten o'clock in the morning; on Friday the 19th, at the Spaniard, Hampstead Heath; on Tuesday the 23d, at the Robin Hood, at Kingston Bottom; and on Friday following, at the French Horn, Charlton,—all at the same hour.

I am, Sir, your obedient Servant,

W. SALISBURY.

* See our present Wrapper.

METEOROLOGICAL REGISTER.

From March the 26th, to April the 25th, 1816.

Kept by C. BLUNT, Philosophical Instrument Maker, No. 38, Tavistock-Street, Covent-Garden.

Moon.	Day.	Wind.	Barometrical Pressure.			Temperature.			
			Max.	Min.	Mean.	Max.	Min.	Mean.	
●	26	SE	30·21	30·18	30·195	48	35	41·5	Fair
	27	E	30·25	30·23	30·24	50	36	42·	Fair
	28	E	30·27	30·25	30·26	49	34	41·5	Fair
	29	E	30·29	30·28	30·285	49	33	41·	Fair
	30	NE	30·27	30·20	30·235	49	33	41·	Fair
	31	N	30·10	29·80	29·95	50	26	38·	Fair
	1	NW	30·	29·86	29·93	49	29	39·	Fair
	2	NW	30·16	30·	30·08	50	31	40·5	Fair
	3	NW	30·37	30·24	30·305	49	32	40·5	Fair
	4	W	30·42	30·25	30·335	48	28	38·	Fair
○	5	W	30·24	30·16	30·20	50	32	41·	Fair
	6	NE	30·20	30·10	30·15	50	33	41·5	Fair
	7	NE	30·10	30·	30·05	49	33	41·	Fair
	8	NE	29·90	29·85	29·825	48	32	40·	Fair
	9	E	29·87	29·86	29·865	49	30	39·5	Fair
	10	SE	29·90	29·88	29·89	52	36	44·	Fair
○	11	E	29·56	29·55	29·555	51	35	43·	Fair
	12	E	29·58	29·56	29·57	50	35	42·5	Snow
	13	NE	29·61	29·59	29·60	52	33	42·5	Snow
	14	E	29·60	29·56	29·58	50	28	39·	Snow
	15	NE	29·54	29·52	29·53	50	29	39·5	Hail
	16	SW	29·53	29·51	29·52	52	32	42·	Rain
	17	S	29·60	29·50	29·55	53	38	44·5	Fair
●	18	S	29·79	29·70	29·745	53	33	43·	Fair
	19	SE	29·82	29·81	29·815	54	40	47·	Fair
	20	E	29·80	29·70	29·75	52	35	43·5	Rain
	21	E	29·74	29·72	29·73	54	38	46·	Rain
	22	SE	29·78	29·76	29·77	56	45	50·5	Rain
	23	SE	30·	29·80	29·90	58	48	53·	Rain
	24	SE	30·	30·	30·00	63	48	55·5	Fair
	25	SE	30·09	30·06	30·075	64	49	56·5	Fair

RESULTS.

Mean barometrical pressure of the month	29·886	Mean temperature of the month	43·193 deg.
Maximum 30·42,	wind at W	Maximum 64,	wind at SE
Minimum 29·50,	_____ S	Minimum 26,	_____ N

Scale exhibiting the prevailing Winds during the Month.

N NE E SE S SW W NW
1 6 9 7 2 1 2 3

	Mean barometrical pressure.	Mean temperature.
From the new moon on the 28th March, } to the first quarter, on the 5th April	30·172	39·937
_____ the first quarter on the 5th, to } the full moon on the 11th	29·996	41·16
_____ the full moon on the 11th, to } last quarter on the 19th	29·581	42·125

REPORT

REPORT OF DISEASES.

THE same disposition to high inflammation marks all the diseases of the last month, whether ophthalmia, rheumatism, gastritis, or pleuritis, or in whatever part the pain has been intense; the pulse for the most part hard, and the blood taken buffy and cupped. Inveterate uterine pains have been greatly exasperated, and much relieved by the lancet. In one case, of four years standing, the blood drawn, at the second bleeding of two successive days, to the amount of twelve ounces, exhibited all the marks of high inflammation. The patient was bled the last time *ad deliquium*, and with great advantage; but it seems probable that the operation must be repeated, though not to the same extent. The reporter is persuaded that by a proper attention to successive or periodical bleedings, many of those dreadful cases which end in the malignant ulcer of the uterus might be prevented.

In one case, apparently of pericarditis, after the third bleeding on the third day of the acute symptoms, lipothymia with convulsions followed. The patient, however, mended, but did not become free from threatening symptoms without several local bleedings and other evacuations.

The method found the most successful has been early free bleedings *ad deliquium*, after which a frequent recourse to the lancet or cupping as soon as any pain or symptoms of inflammation returned. In these bleedings the quantity taken was limited by the effect produced.

Cutaneous diseases are increasing as the season advances, and as the poorer classes resort to the metropolis preparatory to their being engaged in agricultural employments, or, to use their own language, as "the sun gets on both sides the hedge." Towards the close of the month colicky and bilious attacks have been frequent, but not dangerous.

Colchicum still retains its reputation in gout. We shall, in a future Number, give an historical account of the changes in the preparation of this plant, till at last a combination has been discovered which may be given with safety, and, for the most part, with success.

MONTHLY CATALOGUE OF MEDICAL BOOKS.

A TREATISE on the Medicinal Leech, including its Medical and Natural History, with a Description of its Anatomical Structure: also, Remarks upon the Diseases, Preservation, and Management of Leeches. By J. R. Johnson, M.D. F.L.S. 8vo. boards.

A System of Mineralogy. By Robert Jameson, Professor of Natural History, &c. &c. &c. 3 vols. 8vo. boards.

A Compendium of Medical Practice, illustrated by interesting and instructive Cases, and by Practical, Pathological, and Physiological Observations. By James Bedingfield. Royal 8vo. boards.

NOTICES TO CORRESPONDENTS.

Communications have been received from Dr. WALKER, C. S. GAYE, Esq., Mr. WHITFORD, J. W., L. G., &c. &c. which shall appear in our next.

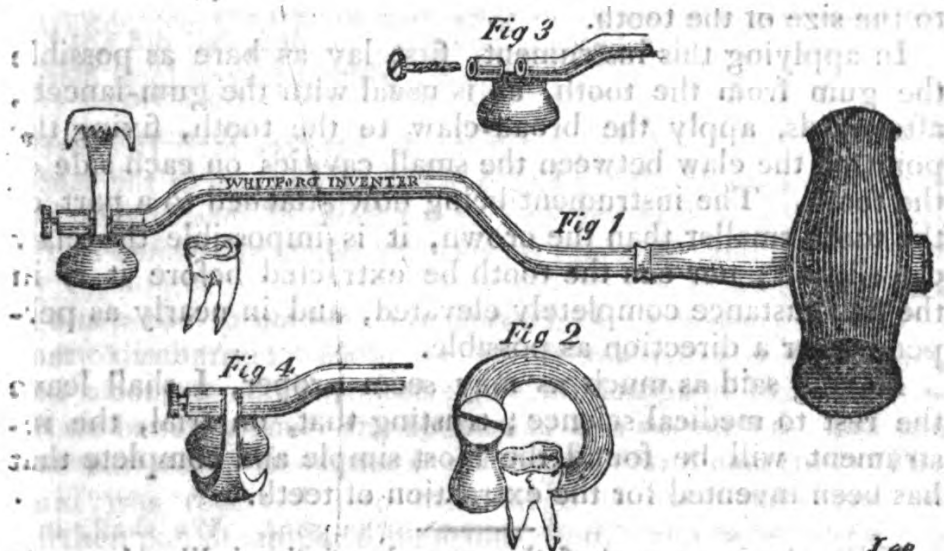
THE LONDON
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6 OF VOL. XXXV.] JUNE, 1816. [NO. 208.

“ For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work to which the Faculty in EUROPE and AMERICA were under deeper obligations than to the Medical and Physical Journal of London, now forming a long, but an invaluable, series.”—RUSH.

For the London Medical and Physical Journal.

Description of a New Instrument for extracting Teeth; by Mr. J. WHITFORD, Surgical Instrument Maker, 47, West Smithfield.



EXPLANATION OF THE PLATE.

Fig. 1 represents the instrument, not of the full size, with the broad claw attached to it, standing upwards, to show the breadth and make of the claw.

Fig. 2, the bolster of the instrument, and the broad claw applied to the tooth.

Fig. 3 shows the shape of the bolster of the instrument, being nearly of an egg-form, completely smooth, and finely polished, with no edges whatever, which prevents the possibility of lacerating or injuring the gum during the operation.

Fig. 4, represents part of the instrument, with the claw surrounding the bolster; other claws are added to the instrument, which vary according to the size of the tooth.

AFTER the many attempts at improving the instrument now in use for the extraction of teeth, it is to be feared that any fresh proposal will be received with much difficulty.

434 Mr. Whitford's *New Instrument for Extracting Teeth.*

Still, however, I have many reasons to hope, that the one now submitted to the faculty will be found to work with less pain to the patient and greater facility to the operator than any hitherto invented. The idea is simple, being derived from the manner in which a nail driven into a piece of wood is drawn out by pincers, or by the carpenter's claw-hammer. The claw embraces not the top of the nail but the body, and when fixed, the other end of the hammer serves as a fulcrum. By these means the nail is readily drawn out. Such is the case with the instrument now offered. The shank is as in the customary instruments; but the fulcrum, or bolster, is made of an egg-form, extremely smooth, to prevent the possibility of the gums being injured by any cutting edges as sometimes happens. It is well known that there is a cavity between every tooth in the jaw;—the claws of the instrument are therefore made of different breadths, to adapt themselves to the size of the tooth.

In applying this instrument, first lay as bare as possible the gum from the tooth, as is usual with the gum-lancet; afterwards, apply the broad-claw to the tooth, fixing the point of the claw between the small cavities on each side of the tooth. The instrument being now attached to a part of the tooth smaller than the crown, it is impossible the claw can slip off; nor can the tooth be extracted before it is in the first instance completely elevated, and in nearly as perpendicular a direction as possible.

Having said as much as may seem proper, I shall leave the rest to medical science; trusting that, on trial, the instrument will be found the most simple and complete that has been invented for the extraction of teeth.

N.B.—An instrument of the same description is likewise made for the extraction of children's teeth, on a small and very neat scale.

For the London Medical and Physical Journal.

Remarkable Case of Ascites; by CHARLES SEAMAN GAYE, Esq.
Member of the College of Surgeons.

NEVER having met with a case recorded in which the fluid extracted, at different times, from the cavity of the abdomen, in a *living* subject, averaged so prodigious a quantity as in the following ascitical patient, which has recently occurred in my practice, I have been induced to obtrude myself on your attention, by requesting its insertion in the Medical Journal; should you, upon its perusal, deem

It worthy of the public notice, and a place in your highly useful and valuable publication.

Elizabeth Gee, of Silsoe, aged forty-five, married fourteen years, had catamenia regularly to the usual period of their termination, notwithstanding the following hydropic disease had existed for several years. She experienced two abortions during the conjugal state, but never went to the full period of uterine gestation, having laboured under ascitical symptoms for nearly eight years, and the usual hydragogue and diuretic remedies having been repeatedly administered under various eminent professional gentlemen, without the least benefit; but still gradually increasing in her enormous dimensions, and extreme sufferings. She was finally prevailed upon to submit to the operation of paracentesis abdominis, which I performed on her on Saturday the 29th day of May, 1813. From the surprising distension of the abdominal parietes, very little impediment was experienced to the introduction of the triangular-pointed trocar, nor was there any expression of pain from the patient. The spot chosen for its insertion was about central, between the umbilicus and the anterior superior spinous process of the left ilium. The whole fluid ran freely off in about thirty minutes; slight interruptions, however, were occasionally and purposely given by the finger placed over the mouth of the canula, to guard against the probable occurrence of syncope, by a too hasty discharge; which, by the assistance of cordials also, and a constant uniform and powerful compression by appropriate bandages over the abdomen, was prevented; and she was carried to bed amazingly relieved and cheerful. The fluid was received into four large wooden pails and an earthen pan of similar dimensions, and, upon being carefully measured, amounted to *fifty-two standard beer quarts, one pint*, of a semi-transparent greenish appearance, inodorous, and of a slightly-gelatinous consistence, weighing 120 pounds avoirdupois. On the Tuesday following she walked down stairs, and from that period progressively recovered her strength, and was, about the 20th of June, in better health and spirits than what she had experienced for several preceding years, being capable of walking a mile or two without inconvenience.

The fluid having again accumulated so as to render her situation insupportable, she became very desirous again for the operation; which she submitted to on the 28th day of February, 1814; when there were drawn off *forty-nine beer quarts, one pint*, of fluid of a similar colour and consistence.

On the 12th day of April, 1815, she measured round the

body, over the umbilicus (which was enlarged to the size of a pigeon's egg), *sixty-one inches*, on which day I again took from her *forty-three quarts*.

About the latter end of March, she again became, in consequence of her sufferings, very impatient for the operation; and, on the 6th day of April, 1816, at four o'clock in the afternoon, I again extracted *thirty-five beer quarts* of fluid (standard measure), in the presence of a physician and surgeon, &c. She bore the operation as usual, with great fortitude and composure; was placed in bed at half-past four, in an apparently similar state to what she had at other times experienced after former operations; talked low, but rather cheerful; and at eleven o'clock at night desired the attendants to go to bed: a change, however, soon afterwards took place, and she expired about twelve o'clock the same night. Not the slightest appearance of blood was discovered during or succeeding either of the operations; and the wounds healed favourably.

Shefford, Bedfordshire;

April 21, 1816.

For the London Medical and Physical Journal.

Case of Enteritis, accompanied with a Preter-natural Formation of the Ileum; by JOHN W. FRANCIS, M. D. of New-York.

THE writer of the following paper was an eye-witness to most of the facts which he relates. They are taken from memoranda made at the request of his preceptor, Dr. David Hosack, in whose practice the case occurred.

On the morning of December the 22d, 1809, Dr. Hosack was requested to visit a Captain D——, aged about thirty-five, of a slender habit of body, who was represented to be in an alarming condition. At the first view of the patient, it was perceived that he was afflicted with all the symptoms characteristic of enteritis, accompanied with those of ileus, viz. an acute and constant pain in the whole abdominal region, particularly about the umbilicus; the abdomen greatly distended, hard, and extremely sensible to the slightest touch, or whenever he attempted to move; vomiting of stercoraceous matter, and constipated state of the bowels; pulses small, tense, and frequent; respiration hurried and anxious; countenance livid; heat of the body increased somewhat beyond its natural temperature; and excessive thirst. These symptoms were attended with a great prostration of strength, and an extreme degree of restlessness.

Upon

Upon inquiring into the history of his complaint, it appeared that he had been first attacked while at the theatre, on Wednesday evening, the 20th. On the morning of the day following, he was visited by an eminent physician, who directed an antispasmodic mixture, the symptoms of his disease being, at that time, but slight. Deriving no relief from the medicine prescribed, Dr. Hosack was called upon on Friday morning, the 22d, between the hours of eight and nine, when he found him labouring under all the symptoms above described.

From the best information that could be obtained, it was rendered highly probable, that the exciting cause of his complaint was *cold*. He had repeatedly been subjected to attacks of this kind, though less violent than the present, for several years past; at which times he was relieved by the ordinary method of treatment.

Immediate recourse was now had to the lancet, and he lost blood to the amount of eighteen ounces. A cathartic, composed of the pulv. jalap. and sub-muriate of quicksilver, each ten grains, was directed to be given, which was rejected in about an hour after he had taken it; and a similar one repeated with the same result. Blisters were applied near the umbilicus; fomentations of vinegar and water over the whole abdomen; and enemata of the oleum ricini and tinct. assafoetid. were administered. These were partly discharged by vomiting, which afforded abundant proof that an inverted action of the whole intestinal canal had already taken place. In the afternoon, the several applications to his surface were repeated; and, during the remainder of the day, he took, in divided doses, no less than two scruples of the sub-muriate of quicksilver, combined with opium and camphor, which, however, were rejected by vomiting shortly after they were taken. The enemata, rendered more active, were again given, but with no advantage. At this time Dr. Miller visited the patient, in conjunction with Dr. Post and Dr. Hosack. They united in recommending a continuance of the same mode of treatment that had been pursued. In this condition he passed the night, the constipation of the bowels obstinately resisting every means used to obtain an evacuation.

On the morning of the 23d, the sub-muriate of quicksilver, combined with opium, was again directed, in doses of fifteen grains every two hours. The warm bath was at the same time employed. It produced a temporary mitigation of his symptoms, but left him still more enfeebled. His fate, which for some time had been probable, now became almost certain. The vomiting, which, within the first thirty hours

458 Dr. Francis's *Account of Malformation of the Ileum.*

from the commencement of his disease, had become stercoraceous, and which had continued, with but little intermission, to the present time, was now renewed. Attempts were made to allay it by the free use of the tincture of opium and other remedies usually indicated under similar circumstances. The effect was an aggravation of all the symptoms. At 10 o'clock, P. M. his dissolution was momentarily expected. His pulses were scarcely perceptible, and his extremities cold.

He expired on Sunday morning, the 24th, at six o'clock, the vomiting having been incessant until about twenty minutes before his death.

Morbid Appearances on Dissection.—At two o'clock in the afternoon, the body was examined, in the presence of the attending physicians, and several other professional characters. The abdomen was tense, and greatly distended; upon making a longitudinal incision into it, a considerable quantity of serous fluid issued out. Having completed the division, the intestines were found in a highly inflamed state, and of a dark-red colour; the peritoneum lining the abdomen was also much inflamed, and covered with coagulable lymph. A remarkable deviation from the ordinary structure of the parts was now discovered to exist: a portion of intestine, attaching itself to the umbilicus, formed a union between it and a part of the intestinal canal. Upon further examination, this appendix was observed to be a *diverticulum* from the ileum. At the place of its union with the ileum it was enlarged and inflamed, in common with the upper portion of the small intestines; the remaining part was of a natural colour, and so intimately connected by its blind extremity at the umbilicus, as to leave little doubt of its being an original malformation. The ileum, above this appendix, was very much inflated, extremely vascular, and, in size, equal to the transverse colon; while the lower portion was greatly contracted, and twisted round the diverticulum; and in this manner had been the means at least of aggravating, if not of inducing, the inflammation, and its consequences, in this particular part of the intestinal canal. This portion of the ileum was of a dark livid appearance, and had lost its natural tenacity. The great intestines were found completely emptied of their contents, and preternaturally contracted in their diameters throughout their course.

The omentum, transverse colon, and stomach, were, at first, altogether concealed, by the distended state of the small intestines, and found in close contact with the diaphragm. The omentum was irregularly drawn together. No unnatural appearance of the transverse colon was remarked.

The

The stomach lay in a circumscribed situation, was not more than two inches in width, and contracted in the same proportion throughout its whole extent. It was entirely empty: upon a minute inspection, no discolouration or affection of its coats was seen.

and by *For the London Medical and Physical Journal.*

A brief Journal of the ordinary Progress of Natural Small-pox, both Distinct and Confluent; by RICHARD WALKER, M.D. of Oxford.

THE following journal is collected and arranged from cases of small-pox which have occurred under my own experience, and I flatter myself that the novelty and convenience of this form of arrangement, as an useful kind of *vademecum*, for the purpose of apprising or reminding a practitioner of the different circumstances in small-pox, in the progressive order as they occur, together with some observations of my own, which I consider as new, in the course of it, may not prove unacceptable.

Notwithstanding the zeal with which vaccination may be persevered in, I think I am warranted in predicting, from my late experience, that, however desirable the extinction or extermination of small-pox may be, this will never be completely effected; and that every place may still be liable to be visited by it at times; and, consequently, that any attempt at improving or facilitating the practice in it, may not be superfluous.

The small-pox is ordinarily divided into two kinds, viz. *distinct* and *confluent*; but, in reality, the difference consists only in a lesser or greater degree of virulence, or rather quantity or accumulation of pustules in each, constituting a greater degree of mild and safe sort, or a greater degree of virulent and dangerous sort;—the disease itself shewing, in different persons, every gradation, from the mildest or most distinct sort to the most virulent, or most confluent and dangerous sort; the gradations, in different persons, running insensibly one into the other: indeed it sometimes happens that pustules of the truly distinct kind, and those of the truly confluent kind, are to be seen in the same person. Moreover it is found that in inoculation, and in the casual or natural mode of taking small-pox, either may produce the other; from which it might be inferred, that the fluid or matter of small-pox itself is, in all instances, essentially the same in its nature; and that the greater or lesser degree of virulence or mildness depends entirely upon other circumstances,

stances, viz. the natural constitution of the person, and the state of the habit at the time of taking it; the season of the year, the mode of treatment, &c.; and especially in the manner of receiving it, the method by inoculation unquestionably possessing a specific effect, independently of other circumstances, in producing a milder state of the disease than when it is taken naturally. The terms *vesicle* and *pustule* are used here almost indiscriminately: the former, however, applies to the eruption in its serous, the latter in its purulent, state.

1st.—The variolous or eruptive fever commences with an attack similar, in certain respects, to the attack of other fevers, viz. with rigors, succeeded by heat, thirst, pain in the head, back, and limbs, &c. The symptoms more especially belonging to this fever, and which indicate approaching small-pox, are languor, drowsiness, giddiness, sickness, and particularly a pain at the pit of the stomach, increased when pressed on, and vomiting; and, in children, starting in sleep, grinding of the teeth, and epileptic fits. The degree of mildness or violence in the ensuing small-pox may be commonly foreseen by an experienced practitioner, from the milder or more violent state of the symptoms enumerated. The more nearly the eruptive fever approaches to synocha, the milder or safer is the disease; and, the nearer it approximates to typhus, the greater will be the danger.

2d.—On the fourth day, and sometimes earlier, viz. on the third day, and, in some instances, on the second day, and even within twenty-four hours, from the first attack of the eruptive fever, the small-pox appears in the form of minute inflammatory spots, resembling flea-bites, first on the face, and successively on the neck and breast, the arms and body, and, lastly, the lower limbs. The later the appearance of the eruption, after the commencement of the febrile symptoms, ordinarily, the milder is the ensuing disease: thus, if the eruption does not appear until the fourth day (reckoning 24 hours for each day) from the first attack, which ordinarily happens about mid-day, but which is oftentimes not noticed till the evening, a mild or distinct kind of small-pox may be expected, and even if it happen on the third day, provided the febrile symptoms, &c. be not violent;* but, if the eruption

* It is the rule with the faculty to reckon the progress of the disease from the first attack; but it is sometimes desirable to refer to the date or age of the eruption: this may be done sufficiently near the truth, as a general rule, by abstracting two days from the former, by considering the third day of the disease the first of the eruption. Whatever mode of reckoning is used, the first day is always reckoned inclusively.

appear on the second day, a more virulent or confluent kind of small-pox may be expected, especially if the febrile attack be more violent, accompanied by a considerable prostration of strength, violent delirium or coma, indicating the fever to be of the typhus character; and, if the eruption appear on the first day, that is, in less than twenty-four hours, with an aggravation of the above symptoms, the worst degree of confluent small-pox may be expected, and very great danger apprehended.

3d.—By the fifth or sixth day, reckoning from the time of the first attack, which mode of reckoning is pursued throughout here, the eruption, in the distinct or mild sort, is ordinarily completed, and the patient becomes pretty well, or considerably better, although the giddiness sometimes continues, and is an indication that more are yet to come out. In the more violent state of the disease, when of the distinct kind, the patient still continues feverish and ill, and the more so in proportion as the small-pox is about to be of the more virulent or confluent kind; and the later is the period at which the eruption is completed.

4th.—By the sixth or seventh day, the pimples, if distinct, are somewhat elevated, inflamed and extended at their base, and have a minute vesicle, containing a colourless serous fluid at their apex, which is somewhat depressed. In the confluent kind, where they are so crowded in certain places as to run together, more or less in patches, which is mostly so in the face, they are flatter, and the small vesicle before-mentioned appears rather earlier than in the distinct sort; and, in the more confluent kind, the patches of pustules appear, at this time, like a skin, of a bright red or scarlet colour, applied, as it were, over the natural skin, or like one or more blisters.

5th.—By the seventh or eighth day, the pustules, if distinct, are much extended in size, viz. in the circumference of their base, with the inflammation around, and likewise in elevation. The face or head begins swelling, from the aggregate effect of the increasing inflammation, and enlargement of the pustules. This inflammation is in proportion to the quantity of pustules in the face and head, being scarcely apparent in those who have very few, and greater in proportion as the face or head is loaded with them, and sometimes sufficient, in the progress of the disease, by the tumefaction of the eye-lids, to close one or both eyes. A spitting, at this time, with some degree of hoarseness and cough, commences, in proportion to the quantity of pustules in the face, head, and throat, occasioning soreness in the throat, and difficulty in swallowing.

In the confluent kind, every one of these circumstances appear earlier, and are more aggravated, according to the greater degree of confluence which is most apparent in the face. From the state of the face, respecting the lesser or greater number of pustules, and their greater or lesser degree of confluence, the greater safety or danger of the patient is chiefly or almost exclusively prognosticated. Thus, in the confluent small-pox, the spitting before-mentioned amounts, in the progress of the disease, to an actual or copious salivation.—In children under the confluent kind of small-pox, other circumstances being the same, a diarrhœa ordinarily occurs, but not constantly, in place of the ptyalism or salivation which is incident to persons of an adult age,—although it sometimes happens that children have, like adults, the same propensity to salivation.

6th.—By the ninth or tenth day, in the distinct kind, the pustules in the face have arrived at maturity, viz. of their full hemispherical size, and contain purulent matter; the tumefaction of the face and head are at their height, and the patient, if at all loaded with pustules there, blind, by the bladder-like swelling of the eye-lids;—the spitting is at its height.

At this time, or rather before, the pustules in the upper limbs, (for the progress of the eruption is uniformly from upwards downwards,) viz. the arms and hands, approaching to maturity, occasion those parts to begin swelling, in like manner as the face had done a day or two before. About this time, the fever of maturation, or secondary fever, as it is called, comes on, which is scarcely perceptible in cases where there are few pustules; but evidently so in the fuller or more violent degrees of distinct small-pox, and sometimes even alarming.

In the confluent sort, the progress of the pustules to maturity is slower, and, indeed, in some instances, they never reach it; and the secondary fever, likewise, is more violent, approximating less or more to the typhoid character; and every circumstance enumerated in the distinct small-pox occurs here in a greater degree.

7th.—By the eleventh or twelfth day, in the distinct kind, the pustules, if of the mildest kind, are beginning to turn of a yellowish brown, and dry, in the face; or when less mild, burst, and discharge a yellowish matter, which concretes into a crust or scab, the pustule itself shrinking. The tumefaction of the face begins to subside, and the secondary fever abates. At this time the swelling of the arms and hands is at its height. But in the confluent kind, at the same period, the pustules, or rather patches of pustules, in the face, either
remain

remain crude and pallid, not unlike pieces of parchment laid on the natural skin, being scarcely elevated: or sooner or later they turn of a blackish brown, and which becomes progressively darker, and even blackish, in the worst degrees of confluent small-pox; *—the salivation, which was before thin and copious, is becoming thicker or more viscid, with increased cough and hoarseness.

8th.—By the thirteenth or fourteenth day, in the distinct kind and pretty full, the spitting has ceased, the swelling of the arms and hands have subsided, and the swelling of the legs and feet has commenced. In the confluent, the progress is the same, excepting that every circumstance is more violent in degree, the spitting more viscid, and the expectoration more difficult.

9th.—By the fourteenth or fifteenth day, in the distinct kind, if not much loaded, the pustules are become quite dry, and beginning to separate in the face, the tumefaction entirely subsided, and the patient perfectly recovered; the pustules in the body and limbs proceed in like manner quickly afterwards; the progress is progressively downwards, the pustules appearing and separating last on the feet, and towards the extremities, viz. where the circulation is most languid. In the confluent kind, at this time, and sometimes a day or two before, the critical time occurs, respecting recovery, the secondary fever, and all the dangerous circumstances, are at their height.

* About this time, and sometimes before, the state of the pustules in the cheeks and lower part of the face, in the more confluent kind of small-pox, are commonly rendered obscure, by the concretion of the serum which flows over those parts from the eyes and nose, giving the pustules there the appearance of having turned, whilst those in other parts of the face remain crude and pallid. About this time, and sometimes earlier, the petechiæ, or purple spots, appear in the interstices of the pustules, which, in the worst or most putrid kind of small-pox, degenerate into vesications, which burst, and exhibit a sphacelated appearance underneath, indicating almost certain death. Hæmorrhage, likewise, sometimes occurs, as bloody urine, &c. and, in some instances, even the fluid in the pustules is tinged with blood,—all signs of a great degree of putrescency. Even in the milder kind of confluent small-pox, the fluid in the pustules never acquires the perfectly purulent state which it does in the truly distinct kind; and yet this fluid, used for inoculation, may, and commonly does, under proper management, produce the mildest degree of distinct small-pox.

10th.—After the fifteenth day, in the distinct kind, nothing more is to be looked for excepting a separation of the crusts or scabs, in progressive succession from the head downwards. In the confluent kind, if the patient survive the fifteenth day, (though they sometimes die earlier,) and the secondary fever and other threatening circumstances abate, especially if the swelling of the face and the upper and lower extremities has proceeded regularly, as the pustules in those parts have successively reached their height or maturity, great hopes may be entertained of the patient's recovery; but, if otherwise, the patient may die at some later period of the disease. The pustules, in the confluent kind, are much later in coming to maturity and separating than in the distinct kind, remaining sometimes on the feet, where they are ordinarily latest to be seen; until the twenty-second day, or afterwards; moreover, the pustules not unfrequently, in the more virulent kind of confluent small-pox, leave sores, extremely annoying, and long in healing;—such is rarely the case in the distinct or milder sort.

11th.—With respect to the *prognosis* in this disease, it may be collected from the different parts of the journal itself: thus, the variolous eruption will be less or more in quantity, or virulence, according to the lesser or greater degree of violence in the various circumstances accompanying the variolous or eruptive fever. Very severe pain in the head, back, and limbs, with much vomiting, are particularly indicative of a violent disease; and the ultimate event of the disease will be according to the quantity and nature of the pustules, a favourable termination being to be expected, with considerable confidence, in every instance of the truly distinct kind of small-pox, however full the patient may be with them. In the confluent kind, a greater degree of danger is to be apprehended; but where the confluence is inconsiderable, the event may be expected to be favourable. When they run very much together in the face, in large patches, the danger is greater, and when the face is, as it were, covered, or nearly so, with one patch, the danger is very great, as before-mentioned. The event, likewise, will depend upon, or be influenced by, various other circumstances, viz. the state of the habit of body; the age of the patient, very young infants, and particularly very old persons, having less vigour, are less able to resist or sustain a severe disease of long duration. The season of the year, likewise, influences the event very much, hot weather being extremely unfavourable; and, lastly, the mode of treatment,

or rather management, of the patient, throughout its progress, particularly during the eruptive fever; and when the disease is violent, during the secondary fever, or fever of maturation.

With respect to the treatment of small-pox, I think it admits, for the convenience of practice, of being divided into three stages, viz. 1st, the eruptive fever, or indisposition previous to the eruption; 2dly, the eruption itself, and the progress of the eruption to maturity; and, 3dly, the fever of maturation, or secondary fever, which occurs at the crisis, or *turn*, as it is called, of the disease. On the first appearance, and throughout the progress of the variolous indisposition, when ascertained, or apprehended to be so, the principal intention should be to prevent, as far as possible, a great assimilation of variolous matter in the habit, or, in other words, to secure a mild or moderate eruption. This can ordinarily be effected, if the professional person be applied to in time, by a strictly antiphlogistic treatment, viz. a forbearance from every thing which excites inflammation, or heats the system; and the administration of cooling or mercurial purgatives; but, above all, by subjecting the patient, throughout this stage of the disease, as far as possible, to a uniformly cool temperature, and the use of cooling weak liquids.* In the outset of this, as in most other fevers, an antimonial emetic is ordinarily exhibited with advantage. With respect to blood-letting, great caution is requisite, lest the system should be so weakened thereby as to lay the foundation for a debilitated state, at the crisis, or towards the termination of the disease, when a vigorous state of the system may be required to enable the patient to pass through it. Moreover, if, from the nature of the symptoms, there is reason to apprehend the affection will be of the confluent kind, with a tendency, in the course of its progress, to typhus, blood-letting would be highly improper. It should be recollected, however, that excess or violence of *synocha* may, in the end, become *typhus*: hence, in some cases, a cautious blood-letting may be the means of averting typhus. On the proper treatment in this stage of the disease, particularly the cooling regimen in every respect, depends the favourable issue. Exposure to the cool air, without doors, possesses a specific effect, in itself, in this stage of the dis-

* During this period, and, indeed, throughout the disease, when they can be taken, acescent fruits, as oranges, cherries, &c. are both grateful to the palate, and salutary in effect.

aware of the cause of it, and the most likely means of preventing it: this ordinarily arises from want of vigour in the habit, and is obviated by moderate warmth, and a restorative cordial regimen; and, if it actually occur, in addition to these, local stimulants, as fomentations, stimulating cataplasms, vesicatories, &c. The evils mentioned here, as likewise the confluent and malignant nature of the ensuing disease, not unfrequently arises from the mal-treatment of the relatives or attendants of the patient, respecting a heating stimulating regimen, in every respect, at the onset of the disease, before the practitioner is called in, the consequent evils of which it may be afterwards too late to obviate; but this must ever be attempted.

I shall conclude by allusion to a circumstance, which, if it were practicable, or should ever be found to be so, would, in my opinion, afford the greatest improvement in the treatment of small-pox, next to that of the cooling plan, adopted of late years, at the commencement of the disease. The danger and fatality in small-pox arises, ordinarily, from the secondary fever, which is produced by the absorption of the variolous matter, confined and stagnating in the pustules after maturation, aggravated or heightened by the loathsomeness and stench proceeding from those pustules, and, of course, contaminating the system. The only means, then, of effectually averting these evils, would be, as in the instances of other abscesses, of which the pustules collectively may be considered as an immense assemblage, so soon as they arrived at maturity, or rather before, to make an outlet for the constant discharge of the matter, keeping the part clean by sponging occasionally with warm water. It will be recollected that the pustules arrive at maturity not altogether, but progressively, which would diminish the difficulty or apparent impracticability of such treatment. Moreover, every prudent means should be used to keep the apartment as cool and pure as can be by ventilation, fumigation, &c.

With respect to physicking after small-pox, it should be considered that a more virulent or rank state of small-pox requires more cleansing after it than a milder sort; but, where symptoms of putrescency have occurred, leaving the patient in a debilitated state, bark and a restorative diet may be more required.

April, 1816.

(To be concluded in our next.)

For the London Medical and Physical Journal.

A Case of Rupture of the Uterus, which terminated favourably;
by J. W., of Maidenhead, Berks.

RUPTURES of the Uterus so generally terminate in death, that I believe there are many, even of the present enlightened generation, who never knew, or can scarcely believe, it terminate in recovery. For proof that such cases, however, have occurred, we can refer to Dr. Douglas's Account of Mrs. Manning, and Dr. Hamilton's Case in his Outlines of Midwifery. The truth of the following may be relied on.

March 29th.—Was desired to visit Mrs. W., of a relaxed habit of body, about twenty-eight years of age, and in the seventh month of her pregnancy.

Nothing material had occurred during the former part of her pregnancy, but a day or two previous to my seeing her a very profuse hæmorrhage had taken place, and she had slight pains in the region of the uterus.

30th.—The pain very materially increased; the hæmorrhage had been very inconsiderable. A glyster was thrown up, which produced a sufficient evacuation; and the following mixture was prescribed:

R. Nitrat. Potassæ.
Pulv. Tragac. Compos. ā ʒij.
Aq. Puræ, ʒvj.
Tincturæ Opii, ʒifs. f. M.

The pain continued very violent, and towards the evening began to bear down. Upon examination, I could not discover the os internum the least dilated.

April 1st.—On examining, at one o'clock in the morning, I found the membranes ruptured, and the os internum so much dilated, that I clearly discovered the presentation of the shoulder: the hand and arm being situated behind the child. The patient appearing much exhausted, and her attendants extremely anxious for her safety, I solicited the assistance of a physician, but, before his arrival, endeavoured (during an interval of pain) to bring the arm forward, in order to prosecute the turn with the greater facility, which was accomplished much sooner, and with greater success, than I expected. The fœtus was highly putrid, and, from appearances, had been some time dead. Waiting in vain for a pain to assist in extracting the placenta, I was forced to introduce my hand into the uterus (as the funis was perfectly rotten), and withdraw the greater part of it. On the second attempt to bring away the remainder, I discovered a very alarming laceration, through the posterior and inferior part

of the uterus. The doctor now entered the room, and, on examining, expressed his surprise at feeling distinctly the intestines and their convolutions.

April 2d.—The patient much better than I expected, notwithstanding severe pains about the uterus and abdomen, which I was pleased to find alleviated by administering the following enema:

R. Sacchar. non Purif. ℥iiss.

Ol. Oliv. Opt. ℥iiss.

Lact. Vaccini ℥x. M. statim. infundend.

She afterwards took a mixture of nitre and opium.

The third day after delivery, the pain great; the discharge highly tinged with blood. On the fourth day the pain very little; the discharge trifling.—Cont. medicam. ut ante.

The fifth day, entirely free from pain. From that time, altered her plan of regimen, when she every day recovered her strength, and at the end of three weeks pursued her usual domestic employ.

For the London Medical and Physical Journal.

On Spontaneous Hæmorrhage; by WALTER CHANNING, M.D.

A NUMBER of cases of spontaneous hæmorrhage having occurred in the writer's practice, he was led to make the following inquiries and reflections on their probable sources and proximate cause. The cases consisted of hæmorrhage from the bladder in mild fever in one subject, from the rectum, in two cases. In these cases the loss of blood was very considerable, without any previous affection of the organ that was apparent, and in which a slight derangement only in some of the functions of the body had occurred a very few hours before the hæmorrhage. In three cases the hæmorrhage occurred from the calf of the leg. Of these, two were adult females, the third an adult male. In neither of them were the veins varicose, and in only one was there any ulceration, and in this the ulcerated surface was not much larger than that of a split pea. In one case the hæmorrhage occurred from the lungs under somewhat peculiar circumstances; one was a case of scurvy, and a number of them cases of epistaxis during measles. If there should be nothing new in any of the following inquiries and reflections, to any reader of the Journal, a principal object in their publication will be answered, if they lead to more elaborate and accurate investigations of the subject. The first inquiry is into the most probable sources of spontaneous hæmorrhages.

Among the many opinions which have been held on this point, two only will be mentioned. The first supposes the blood.

blood to flow from the mouths of those vessels which open into cavities, into secreting organs, into the receptacles of secretion, and into muscular and other structures; the great agents of supply and other important functions, constituting the exhalent and secretory systems. This doctrine of the sources of hæmorrhage has been designated by the term *anastomosis*. The second is termed *diapedesis* or *transudation*. This teaches that hæmorrhages proceed from pores with which the body is every where replete, and from those interstices which it is supposed may be formed, by accident or disease, by a greater than natural separation of the ultimate particles of which the solids are made, or, supposing their natural state to exist, in consequence of a greater than natural fluidity of the blood.

The first of these opinions appears most consonant with what we best know of the human body. For, though disease may be regarded, in some measure, as an accidental occurrence or state of the system, it generally appears to us so modified by, or under the influence of what is natural or peculiar to the living body, as to permit, in some considerable degree, the usual phenomena of health; and, although occasionally the natural functions of an organ may apparently cease in consequence of the violence of disease, still the diseased actions go on in the same vessels, in which the healthy ones resided; thus making these last ultimately the means, agents, or seats of curative processes. Farther, while we regard the various actions of the healthy body as the ultimate object of certain structures, we not only feel unwilling, but perceive no necessity to exist, to resort to other modes of explaining disease. While we retain what may be called at least a natural physiology, we seem in our investigation of disease to pursue a rational pathology.

The strongest arguments, however, for this opinion, are not drawn from its reasonableness; others more satisfactory may be derived from the condition of the general system, that of parts only, and peculiarities of the organs themselves under which hæmorrhages most commonly occur.

The greater number of cases which are mentioned in the beginning of this paper, are of hæmorrhage, which occurred among the other phenomena of disease. Some of them were unusual occurrences, others among the more usual symptoms of morbid action. The most striking were those hæmorrhages which took place from the bladder and lungs. The circumstances under which that occurred from the bladder were peculiar. The subject, an extremely delicate child, had been sick for some days, was extremely reduced by disease; an unusual flow of urine took place, which was

soon followed by blood from the urinary organ. This case goes far in support of the opinion adopted in this paper. The general state of the system predisposed the organs in general to take on diseased action. The functions of the kidneys became principally disturbed. So greatly was their secreting power increased in the first place, as to produce a very unusual quantity of urine. The condition, whatever it was, of the vessels or the organs subsequent to this action, permitted the escape of the blood along with the natural secretion. The affection, most probably, did not amount to inflammation; hence no pain was complained of, or it was so low a degree of inflammation as only to be followed, first, by increased urine and then blood.

Farther, the rare occurrence of hæmorrhage from organs labouring more or less under disease, is not an argument against the doctrine of anastomosis; but, were the notion of transudation true, we might be rationally surprised that we do not more often find effusion of blood into the various cavities of the body. In this last case the effusion would be merely an accidental, not an unusual occurrence. In the first, on the contrary, it can only occur as a consequence of the living agency, and be among the anomalous occurrences of diseased function.

If the remarks just made be true, their application to the more common cases of hæmorrhages may be extended without violence, to those cases also to which the doctrine of transudation would appear to have a more legitimate reference. I now refer particularly to those which appear under circumstances of peculiar malignity, which, from their phenomena, have received the appellation of putrid; and in which, not only the solids, but the circulating fluids have undergone certain changes, in consequence of which some of their distinctive living characters, and more especially those of the last, appear in a measure lost.

But, if blood of its usual qualities can and does at times pass extremely minute vessels, vessels which have very peculiar offices in the system to perform, and originally were never designed to give passage to the blood, *a fortiori*, how much more readily will the blood find a passage through the same vessels, attenuated as it is by disease, and the vessels themselves, in their want of function or action presenting but a slight obstacle to its escape?

Again, it has been asserted by those who support the opinion of transudation, that were hæmorrhage truly the consequence of anastomosis, we should very often find it occur in those higher actions of which those vessels are susceptible and so often suffer; for instance, during a state of inflammation,

tion. And the argument is supported by the increased secretion which inflamed organs at times afford.

Now, it is a well known fact, that inflammation is at times attended with increased secretion, and sometimes even by effusions of blood from the affected organ. But, as inflammation is a process totally unlike the natural, or rather healthy, functions of a part or organ, attended by its very nature with very extraordinary, but fixed, peculiar, I might say natural, phenomena, we should almost, nay quite, as soon, look for hæmorrhage during the most healthy state and functions of an organ, as during the occurrences of genuine inflammation. During genuine inflammation, the vessels are called upon to do something more than in health; they are not merely to preserve the integrity of the organ to a degree consistent with its vitality, but in taking on themselves new functions, to restore to it health. All that is designed in these remarks, is to show that, because the secretions of an organ may be increased by inflammation, or what appears to be genuine inflammation, and because hæmorrhage is not always among its phenomena, we are not hence to infer that its sources are not vessels, and its occurrence not among the actions of which those vessels are susceptible.

If we advert for a moment to diseases in which hæmorrhages are most frequently found to occur, we shall find them diseases of organs remarkably vascular, and perpetually performing very important secretory functions. Thus we find the diseases of the mucous membranes most frequently accompanied with hæmorrhages, and next to these, those of the serous membranes.

Dysentery, that distressing affection of the mucous membrane of the lower portion of the intestinal canal, furnishes us with a striking illustration of these remarks. All the facts connected with its peculiar phenomena, viz. the discharges which characterize it, lead us to the vascular origin of its occasionally accompanying hæmorrhage. We have, for instance, in the first place, the increased mucus covering the fæces; then pure mucus, then mucus slightly tinged with blood, and at last the simple coagulum of blood itself, or that coagulum combined with portions of lymph which the motion of the intestines, their pressure or other causes have detached from the common mass, or which the small vessels have immediately yielded; and sometimes a small portion of mucus, that the lowest vessels of the rectum may be still able to secrete.

When we examine the body after death from this disease, we discover, not an abraded surface of mucous membrane covered with pus, but a surface smeared with a bloody mucus, or covered with a layer of lymph, similar to the discharges

charges during life; and when we have removed these, we sometimes observe the turgid secreting vessels, constituting those dots which authors have mentioned; at other times other appearances of inflammation; while sometimes we only observe marks of organic disease so slight, as to be scarcely visible. The phenomena just particularized may all be satisfactorily explained without referring to any of them, either to the abrasion to which an ulcerative process might be liable under the existing circumstances of the disease, or to that partial disorganization which the violence of the disease might be conjectured to induce, and which has been considered by some so favourable for hæmorrhage by transudation.

If spontaneous hæmorrhages have their source in vessels, the next subject for inquiry is their proximate cause, or that state of vessels of which they are the effect. To answer this question, there are far greater difficulties to surmount, than were met with in pursuing the first inquiry, and, at last, we can arrive at but a rational hypothesis. In the greater hæmorrhages which occur from secreting organs, properly so called, we find in the first place a partial temporary suspension of the secreting function, though, at times, the hæmorrhage is preceded by an evident increase of the secretion. The vessel, in other cases, which heretofore delayed the blood, (if I may so say), that it might select from that fluid what was most appropriate to the performance of its function in the economy, or that it might from the whole mass elaborate its secretion, (which, by its healthy structure and during its healthy functions, could not admit the passage of the fluid in its entire state,) is now found to give the blood a free course. The peculiar irritability with which the vessel was endowed, and which preserved, while it constituted, its healthy tone, is found to a degree wanting, and the stimulus of what may be called a foreign body is not perceived by it. If we examine the purely exhalent system, from which, at times, hæmorrhages proceed, we also find, that that has undergone great changes from its natural state and function. Instead of separating from the common circulating mass, that portion of it which will answer its peculiar purposes in the economy, and the just quantity of which is so exactly preserved by the balance between exhalation and absorption, we find the blood itself effused; at times, in such quantities, merely as to produce but slight inconvenience, at others, fatal effects; its consequences always depending on the circumstances inducing or attending the discharge, and on the cavity into which it is made. Let us now inquire, whether the state of the vessels, favourable to hæmorrhage, be secondary

dary to a peculiar condition of the general system—in fact, be produced by it, and simply a symptomatic affection? or is hæmorrhage the consequence or symptom of a primary, idiopathic affection of the small vessels, of which the peculiar state of the circulation, and the morbid condition of the whole system are but symptomatic?

This inquiry is, perhaps, of more importance than at the first sight it may appear. Hæmorrhage is certainly among the alarming phenomena of disease, and at times, and with the uninformed always, among the most alarming that occur. It is, however, a fact, that it is by no means always among the most dangerous phenomena of disease, and at times it appears to us under the character, and certainly with the effect of a curative process.

To the above questions, it will be perfectly safe and perfectly true to answer, that hæmorrhage undoubtedly occurs as a consequence of an original general disturbance in the system, and is thus among its symptoms; and is also, in other cases, the effect of an original affection of those vessels from which it proceeds. The vessels from which it may proceed, are remarkably under the influence of the various causes which affect the body, and particularly the more powerful ones, and especially during much local or general debility. Thus we find them, at times, influenced by the state of the mind. A patient, ill of pulmonary disease, requested a consultation. In this case, hæmoptysis had never occurred. The disease, though of long standing, had not apparently produced great disorder in the lungs. It seemed chiefly confined to the mucous membrane. She was a little agitated by the presence of her new physician, which agitation, however, soon subsided, and as she was coughing, as she usually did, the physician begged her to permit him to see the matter expectorated. It was found to be chiefly blood. It produced the alarm and distress that such an occurrence might be supposed to excite; they soon subsided, and in a few hours, with very simple remedies, the hæmorrhage ceased, and has not again appeared. The disease has not essentially altered. In this case a very sudden change was effected in the state and functions of the small vessels. It was one of the ultimate effects of some operation of the mind. The small vessels were suffering a debility induced by protracted, though slight organic disease of the lungs, and in which they were most intimately concerned. The circulating system also possessing a morbid mobility, was suddenly affected by the mind. An unusual quantity of blood was thrown on the small vessels, and they readily gave it a passage through and from them. In this case, although the hæmorrhage

morrhage depended on the altered state of the circulating system as its exciting cause, it was, nevertheless, in part, the effect of the previous condition of the small vessels, viz. of their predisposing debility. A case is related in the *Parisian Journal of Medicine* for January, 1815, edited by Sédillot, in which the hæmorrhage occurred from the skin; the blood freely passing from the vessels of perspiration. This remarkable occurrence, was among the phenomena of *nephritic colic*, which disease was directly and immediately produced by a violent fit of anger. The small vessels appear, in the case of this woman, to have been remarkably susceptible of the action on which hæmorrhages depend, and which was produced by moral causes. During a fit of anger, two years previous to the bloody perspiration, considerable hæmoptysis and cough occurred; and this was always the consequence of mental disturbance, unless peculiar nervous symptoms, to which she was also liable, were produced by the fit of anger. The *last* paroxysm of the colic she suffered, took place without manifest cause; and the hæmorrhage was, in this instance, confined to the skin of the face, neck, arm-pits, and anterior part of the thorax and abdomen. At the first view of this case, the bloody perspiration which occurred among its phenomena, may be considered a sympathetic affection, the original one being the nephritic colic. With more correctness, however, may it not be considered as the direct consequence of that state of mind which induced the colic; and this, notwithstanding its occurrence during a paroxysm of colic, which was not the consequence of the original cause, viz. the mental disturbance? The hæmorrhage had occurred repeatedly with the colic, and thus they had become intimately associated, not as cause and effect however, but as the effects of any cause which might be sufficient to the production of either of them. The small vessels of the skin and those of certain abdominal viscera, were precisely in the same state of predisposition to any morbid impression. The varied and remarkable effects of such impression, however, depended on circumstances peculiarly calculated to admit of their production. The hæmorrhages, in these cases, were the consequence of derangement in the whole system, were in short secondary affections in the small vessels. In leaving these, to consider those which proceed directly from the morbid actions of the small vessels themselves, we enter the most interesting and widely extended field of pathology.

What very important morbid action, what disease can we advert to, in which the small vessels are not most intimately concerned? Dysentery, which we have before adverted, what is it but a disturbance in the functions of the small vessels

sels of the intestinal tube, most intimately associated with a similar one of those of the skin? It is true, that in the milder cases of this disease, hæmorrhage may not appear. This is very easily explained, without yielding the position that they are the seats of hæmorrhage when that does occur. They are able, by their great and easy adaptation to new occurrences in the system, to dispose of, or relieve themselves of the great afflux of blood to them, by exerting themselves in an extraordinary degree. But when the impression of the exciting causes of the disease has been very violent, when especially the predisposition has been perfectly formed; after a few days of violent secretion, of violent effort to effect a cure, if I may so say, their natural healthy functions in a great degree cease, and pure blood passes unimpeded into the intestinal canal. In this case, then, hæmorrhage legitimately belongs to the small vessels as the immediate effect of their own actions. If these are not soon suspended by those means which diminish morbid irritability in them, as in all other organs of similar properties, they communicate to the system at large, or excite in it, and directly too, disturbances which advance with more or less rapidity to a fatal termination. I might mention here the fatal convulsions which have occurred in dysentery, in children, this season at this place.

Take another disease, an inflammation, for instance, of the lungs. In this affection, notwithstanding the general disturbance which exists in the system, the rapid and strong pulsation of the heart and great vessels, the heat, &c. which might lead us to trace the local affection entirely to that of the general system, the small vessels of the diseased organ, may perhaps more correctly be considered as primarily affected, and as suffering disease from their intimate association with those of the surface; and in the advanced stages of the disease, when hæmorrhage becomes its accompanying phenomenon, they are not only the great agents of the hæmorrhage, but to their diseased functions are to be then traced the various morbid affections which are exhibited in the general system. That this reasoning is true, we have only to advert to the treatment of this disease, which consists of two great objects, viz. to diminish the action of the small vessels; and then to induce new actions, which on the principle of mere change effects the cure; or, by suspending disease, leaves the organ at liberty to resume its healthy operations.

There is nothing more common in our pathological observations, than to view diseases in the relations of cause and effect. It has been an object in this paper to consider diseases, which appear to have these relations, not exactly in this light, but to argue that the predisposition to disease in

any one organ may not have been confined to that alone, but has been extended to other organs in its neighbourhood; and that the operation of the exciting causes on each, in the production of the disease, has appeared sooner or later in one or the other, in consequence of peculiar circumstances of structure or function, or of susceptibility to the action of those exciting causes; not in consequence of the mere operation of sympathy.* To illustrate this reasoning, I would advert to some very remarkable cases of hæmorrhage constituted by a vicarious performance of a certain uterine function, viz. the catamenia. Thus the catamenia, instead of appearing from the cavity of the uterus, have been secreted into the cavity of the abdomen; or, in place of uterine hæmorrhage at the proper period, hæmorrhage has occurred from the serous vessels of the peritoneum. Now, in this case, the predisposing causes of obstruction affected the small vessels in the neighbourhood of the uterus; and the exciting causes found the first more susceptible of their influence than those of the last, or, what is more probable, the exciting causes of the obstructions directly affected the small vessels; and the derangement of the general system was more readily relieved through them, than through the secreting function of the uterus.

These remarks have of course a limited extent. They are meant to support the opinion of the primary affection of the small vessels in the species of hæmorrhage under consideration. It would be interesting to extend these remarks to various other species of spontaneous hæmorrhage. Scurvy offers us an instance in which this phenomenon is very generally to be observed. The proximate cause of hæmorrhage in this case is strictly an idiopathic affection of the small vessels. The peculiar condition of these vessels on which the hæmorrhagic action depends is very extensive in this disease. For, though we find the actual escape of blood from the body occurring sensibly from the gums, we also find a strong tendency to the same phenomenon in every part of the body which comes under our notice. We observe it particularly in the skin. Now, although there be much in the cuticular spots, which are observed in this disease, which

* It may be replied here, that even under these circumstances of extended and universal predisposition, the fact of a progression in diseases proves the doctrine of sympathy. All that is meant in the above remark is, that the second organ is not affected with disease merely in consequence of the disease of the first, but that the order of occurrence is the consequence of circumstances altogether foreign from sympathy.

resembles some of the exanthemata both in their access, progress, and decline, perhaps they would with more correctness be said to owe their irregular appearance to the various degrees of predisposition the small vessels possess, to an effusion into the skin; that in short, such an universal debility in them as would admit an universal and simultaneous escape of blood into the skin, and cellular structures, would amount to positive death. We are to consider the gums and small vessels of the skin, in common with the whole system, under the influence of the predisposing and exciting causes of scurvy, that the hæmorrhage in fact is but a symptom of the idiopathic affection of these vessels.

A classification of hæmorrhages has suggested itself in the course of the preceding inquiries, which, it was thought, would render their investigation more easy, and the communication of what might be discovered, far more perfect, than that which is founded on their remote or exciting causes. This latter method has been adopted in the divisions of M. Lordat, who published a work a few years ago, expressly on the subject of hæmorrhages. The classification suggested, is to be founded on the *textures*, or organs from which most generally the hæmorrhages proceed. Thus hæmorrhages from the mucous membrane should constitute one class or genus; those from the serous another; the muscular organs a third, &c. &c. while the species should be founded on prominent circumstances more immediately concerned in the actual flow of blood.

The writer is aware that this method is condemned by M. Lordat. But this judgment of this highly respectable author, he is also aware, was the consequence of the peculiar notions of that author, concerning the share the small vessels of the various textures or organs of the living body have, in the production of hæmorrhage, viz. that they are but secondarily concerned in its production.

Something may have been expected in the course of this paper relative to the modes of treatment of hæmorrhages. The limits prescribed by the nature of the work in which the paper appears, have prevented an investigation into the modes of treatment. In fact, the treatment of hæmorrhages resolves itself either into the treatment of those diseases in which they appear, or which they constitute; or, when it is but a purely symptomatic and sudden affection, the consequence of derangement of the whole system, into the treatment, or means of relief of the general system, with whose disorder it is associated, or of which it is but a symptom.

Hæmorrhages, as they have been considered in the preceding pages, are very often the results of disease in the

small vessels. These vessels are intimately connected with the whole circulating system. This last, of course, is always more or less affected by the diseases under notice, and in a majority of their diseases it is believed that the best means of cure may be found in direct depletion from the circulating system. The writer has seen with pleasure the practice of bleeding becoming more and more extensive in this part of the country; and on unquestionable authority would mention the success of bleeding in some cases of our dysenteries.

Hæmorrhages on the other hand depending on other circumstances will require their appropriate treatment. Those which are produced by sudden commotions of mind or body, or both, will at times be best treated by bleeding, at others by narcotics or antispasmodics; others the consequence of peculiar courses of diet will be best treated by entire change in the food, and by tonics. Scurvy furnishes us with instances of this kind; while critical discharges of blood will cease with the other circumstances attending crisis. Febrile diseases attended with petechiæ, and discharge of blood from various organs, of course, will demand appropriate treatment.

The question of the precise nature of the action of the small vessels, on which hæmorrhage depends, although involved in the preceding inquiries, has been carefully avoided. The motives for this silence, the writer confesses to have been others, and those more powerful, than the length to which the paper has already extended. This last motive has however had some influence with him in bringing it to a close.—*New-England Journal.*

For the London Medical and Physical Journal.

Remarks on the Review of a Paper in the Philosophical Transactions; by A. P. WILSON PHILIP, M.D. of Worcester.

IN the London Medical and Physical Journal for last April, a gentle man who had reviewed a paper of mine, published in the Philosophical Transactions of last year, replies, in a letter addressed to the Editors, to certain charges brought against his account of it. It is not my intention to make any observations either on his account of my paper or his reply to those charges: of both the public will judge. I wish to inquire what motive has induced him to attempt, by misrepresentation, to substantiate a charge of cruelty against me. I do not allude to his frequently calling the reader's attention to the cruelty of such experiments as those related in my paper, without at all adverting to the means I employed

ployed to lessen the sufferings they occasion, which all will allow to be uncandid;—I allude to more direct language. In one passage of the above letter he says, “Without repeating the disgusting cruelties of hot wires applied to the spinal marrow, of various incisions, ligatures, &c.” Hot wires were, indeed, frequently applied to the spinal marrow in my experiments, but this gentleman conceals the circumstance that it was to the spinal marrow of the dead animal alone that they were applied. He also says, after stating that my experiments may lead to some important conclusions, “I sincerely hope, therefore, that Dr. P. will continue his experiments with less cruelty.” After such an observation, it is incumbent on this gentleman to point out how my experiments could have been made with less cruelty.

My anxiety to lessen the sufferings of animals in such experiments induced me, on a former occasion, publicly to propose the following rules for this purpose, which I beg leave here to repeat:—To destroy the sensibility of the animal previous to the experiment, when this can be done without influencing the result. When more than one animal are equally fit for the experiment, to choose that which will suffer least by it. To destroy the animal as soon as the purpose in view is answered; and to take such precautions as shall render as few repetitions of the experiment as possible necessary.—To these rules I have, in every part of my investigation, strictly adhered. If the author of the above letter can point out any addition to them, tending farther to lessen the sufferings necessarily attending such investigations, I shall be happy to express my thanks for the communication of it. It cannot surely be maintained that no such experiments should be made, in which the most important interests of human nature may be concerned.

All who assisted me in my experiments will declare, that I never failed to expatiate on the cruelty of experiments on living animals, and on the necessity of weighing well the objects in view before such experiments are undertaken; and that many points which both they and I wished to ascertain were left undetermined, wholly because they were not considered of sufficient importance to sanction the sufferings which the inquiry would occasion.

The observations with which you preface the letter above referred to, have induced me to address these observations to you, rather than to the editors of any other journal; and to request that you will do me the justice to give them a place in your Journal for next month.

Worcester; May 11, 1816.

For

For the London Medical and Physical Journal.

Case of Placental Presentation succeeded by Acute Puerperal Peritonitis; by RICHARD EDGELL, Surgeon, of Bristol.

I WAS called, in great haste, on the 18th of last April, to M. C., the lady of a clergyman. She was lying on the sofa, very faint with the loss of blood. She had been in an ill state of health for many years,—was in the last month of pregnancy. She refused submitting to an examination at that time, but promised she would acquiesce if the flooding should increase. I directed she should confine herself to her bed-room, strictly observing a recumbent position; and ordered the nurse to keep every thing in readiness for immediate delivery. My patient had frequent but no considerable returns of flooding till the 29th, when I was again called in great haste. I perceived there was now no time to be lost, and, with great difficulty, got her placed on the bed; but, finding that she still had an aversion to have any thing done till the *pains* came on, I stated to the husband the propriety of calling in some one else. Mr. C. immediately procured Mr. Richard Smith, from whom I have received throughout (as it will appear to Dr. Kinglake) this *extraordinary* case every assistance he is so well able to afford. We made an examination, and found what we apprehended, viz. a placental presentation. We determined on immediate delivery, which I effected with great ease in a few minutes, the os uteri being fully dilated. The vagina was filled with coagula. No *pain* whatever, consequently no *contraction*, had taken place previous to the introduction of the hand, which was done slowly and with much caution. She was delivered of a full-sized female infant, which is doing well.

The uterus was thrown into unequal action, and formed slightly what is called the hour-glass contraction, which obliged me again to introduce the hand to complete the delivery. An opiate was given, and every thing went on favourably till the 2d of May, when I was called at half-past eight in the morning. I distinctly heard groans as I entered the house. Mr. C. had left her, at twelve at night, perfectly easy, and full as well as child-bed women usually are two days after delivery. In a short time after her husband had left her, Mrs. C. was attacked with severe rigors, and excruciating pain in the abdomen, which continued without intermission. I was unfortunately not sent for till half-past eight in the morning, which allowed the disease eight hours' progress. The attempt to put my hand under the bed-clothes was attended with so much pain, that I desisted.

From

From a large orifice, about twenty-four ounces of blood were drawn, which was very sizzly. This occasioned syncope. The pain was much abated. Bowels freely open, from a purgative given the day before. The pulse, which was 120 before the bleeding, immediately sunk to 98. Fifteen grains of calomel were given. At six in the afternoon, the pulse was again at 120, and, as the pain had returned, it was determined in consultation to have recourse to bleeding. About twenty ounces were taken, which was followed with great relief. Mrs. C. remained for a long time in a state of syncope. At ten the pulse was 120; but the patient was easy, and apparently much better.

On the 3d, at half-past eight in the morning, there was rather an increase of the pain; Mrs. C. had slept but little; the bowels had been freely acted on by the calomel. At twelve, as the pain was still distressing, fourteen leeches were applied, after which the abdomen was tolerably easy, when pressed; but there was a most distressing urging to make water. To relieve this, three table-spoonsful of an eight-ounce mixture, containing three grains of Tart. Ant. and one ʒ of Tinct. Opii, were given every three hours. At two o'clock, the irritation at the neck of the bladder being increased, the catheter was introduced, and about two table-spoonsful of water drawn off, accompanied with much flatus from the bladder. An injection with eighty drops of Tinct. Opii was thrown up the rectum. At six the catheter was again introduced, and some water drawn off, with much flatus. The tenesmus was now very distressing, and an enema with half an ounce of Tinct. Opii was thrown up. At nine the tenesmus was much relieved; the patient had had some sleep, with frequent startings, and easily awoke.

4th.—At six in the morning tolerably easy; had slept moderately; head-ache severe. At nine the pulse was 120; skin moderate; introduced the catheter, and drew off a pint and half of water. At two complained of bearing-down pains. At six the tenesmus very severe; pulse 140; tongue covered with a brown fur, but not dry; skin moderate; no pain on pressing upon the abdomen; no motion; drew off water, and injected three ounces of Tinct. Opii as an enema. At ten the bearing-down pains were greatly relieved; pulse fluctuated from 130 to 140, and was weak; countenance sunk; skin much colder than natural, and moist; spasmodic twitchings of the face and hands; she complained much of her throat and head; strength much sunk, and the voice scarcely audible. It was agreed in consultation, at six in the afternoon, as it would be impossible for my friend Mr. Smith

to

to see her again that night, that I might make use of any means I might deem proper; and seeing our patient in this deplorable state, I thought I should not be discharging my duty if I did not hazard a trial of the rectified spirit of turpentine. I gave her rather better than a fluid ounce, and staid fifteen minutes with her to observe its effects. Her pulse rose somewhat in strength, but not in frequency; the skin, I thought, was warmer. At the expiration of the fifteen minutes I repeated the dose. Mrs. C. was evidently roused by the exhibition of the turpentine; I therefore left directions to have it given every three hours, provided she should be able to swallow it.

5th.—At half-past eight in the morning Mrs. C. was better: she had slept but little; pulse 120; skin more natural; tongue brown, but not dry; easy in every particular, except when she had occasion to pass a stool; she had made water frequently, and with perfect ease, which she attributed (to use her own words) to the blessed medicine the turpentine. We were obliged to discontinue it internally, on account of the diarrhœa it occasioned; but, as she was better in other respects, it was directed to be rubbed upon the abdomen, and three table-spoonsful of chalk mixture with *conf. cardiacæ* and opium to be given occasionally. Warm port-wine negus was also frequently given. Mrs. C. continued to get better throughout the day: at half-past ten at night she was better in every respect; the friction was ordered to be repeated.

6th.—At eight in the morning, the patient was much the same as yesterday: there was much debility, with depression of spirits, and slight sickness; pulse 120, but stronger; she had slept well, and had passed four watery motions; a glass of warm mulled wine was given, and a saline effervescent draught, to counteract the sickness; jelly and arrow-root, with a little wine, the chief diet. In the evening the tenesmus of the bladder had returned; an opiate enema was thrown up. Ten at night, better; she had slept, and was cheerful.

7th.—At eight in the morning, pulse 110, and rather weak: there had been five motions during the night; she had slept but little; diet as yesterday. The turpentine friction being repeated, occasioned great pain, and re-produced the dysenteric symptoms. An enema made with starch, containing five ounces of *Tinct. Opii*, was thrown up in the evening. The breasts are beginning to be troublesome, and were ordered to be drawn.

8th.—Much better. We were received with a smile. Mrs. C. had slept well; pulse 120 in the morning, 110 in the evening;

Dr. Baillie on the Dedication of Dr. Robertson's Book. 465

evening; debility appears to be the only complaint, but she evidently requires much management and good nursing.

9th.—As well as yesterday: pulse 100; tongue cleaner; four loose stools in the night; appetite returning. An opiate draught was ordered in the evening.

10th.—Going on well.

May 10, 1816.

To the Editors of the London Medical and Physical Journal.

GENTLEMEN,

A DEDICATION to me being prefixed to Dr. Robertson's Book, I feel it to be necessary, in justice to myself, to give the following public explanation of the circumstances.

About six years ago, Dr. Robertson wrote to me from Scotland, requesting that I would permit him to dedicate a book to me, which he was about to publish. In this book he was to examine some opinions of Sir Everard Home. I consented to accept of the dedication, provided these opinions were examined with liberality, more especially as Dr. Robertson was a native of that parish in which my father had been long established as the clergyman, and where I had spent most of my infant years. When this book was published, I looked into various parts of it, without reading it regularly, and I do not recollect to have observed in it indecency of language. A few days ago, a friend of mine shewed me the third edition of Dr. Robertson's book, in which were a good many passages of the most indecent nature. This struck me with astonishment and indignation. I shall not express what I think of Dr. Robertson's conduct in prefixing my name to an obscene book, without my knowledge; but, from the obscenity itself, he has forfeited his character and rank in society. I am anxious, however, to preserve mine, and therefore think it necessary to communicate, through your Journal, that I did not know there was either a second or a third edition of this book, till my friend shewed to me the third edition; and that I even thought Dr. Robertson had been dead for the last two years. I have now mentioned every thing which I know relative to this most disagreeable business; and I trust that from the tenour of my public and private life, I shall not be readily suspected of encouraging so gross a violation of morality and decorum.

I remain, Gentlemen,

Your most obedient Servant,

Lower Grosvenor-street;

M. BAILLIE.

May 14, 1816.

COLLECTANEA MEDICA,

CONSISTING OF

ANECDOTES, FACTS, EXTRACTS, ILLUSTRATIONS,
 QUERIES, SUGGESTIONS, &c.

RELATING TO THE

History or the Art of Medicine, and the Auxiliary Sciences.

Quicquid agunt medici,
 Nostri farrago libelli.

THE attention of naturalists, and more particularly those connected with medicine, has been lately much attracted to parasite animalcules, especially such as live in the human body. A case lately occurred, at one of the City Prisons, of a man so infested with lice all over his body, that he was suspected to be afflicted with the morbus pedicularis. Dr. Adams procured some of the lice, which Sir Joseph Banks requested Dr. Leech, of the British Museum, to examine with peculiar diligence, in order to ascertain whether they differed at all from the common body-louse. After a most minute comparison, Dr. L. ascertained, beyond all question, that they are the same. At present, therefore, no other pediculi are known whose *habitat* is on the human body, excepting the common or head louse, the crab-louse or *pediculus inguinalis*, and the body-louse. We have, in a few late Numbers of our Journal, entered a little into the controversy concerning the *Acarus Syro*, or *A. Scabiei*, as it is sometimes called, and given Dr. Adams's reasons for asserting that such an insect has never been found in the true itch; but that it excites a disease peculiar to itself, and which may be cured by a diligent attention to the extraction of the acarus. We now offer the following passage, extracted from a popular work, which we rather prefer, as few of the faculty have opportunities of examining the question in all its scientific array, or even in a practical form.

Extract from Messrs. Kirby and Spence's Introduction to Entomology.

Insects, as to their *direct* attacks upon us, may be arranged in three principal classes. Those, namely, which seek to make us their food; those whose object is to prevent or revenge an injury which they either fear, or have received from us; and those which indeed offer us no violence, but yet incommode us extremely in other ways.

I hope I shall not too much offend your delicacy if I begin the first class of our insect assailants with a very disgusting genus, which Providence seems to have created to punish inattention to personal cleanliness. But, though this pest of man must not be wholly

wholly passed over, yet, since it is unfortunately too well known, it will not be at all necessary for me to enlarge upon its history. I shall only mention one fact, which shows the astonishingly rapid increase of these animals, where they have once gotten possession. It is a vulgar notion, that a louse in twenty-four hours may see two generations; but this is rather overshooting the mark. Leeuwenhoek, whose love for science overcame the nausea that such creatures are apt to excite, proves that their nits or eggs are not hatched till the eighth day after they are laid, and that they do not themselves commence laying before they are a month old. He ascertained, however, that a single female louse may, in eight weeks, witness the birth of five thousand descendants.* You remember how wolves were extirpated from this country, but, perhaps, never suspected any monarch of imposing a tribute of *lice* upon his subjects. Yet we are gravely told that in Mexico and Peru such a *poll-tax* was exacted, and that bags full of these treasures were found in the palace of Montezuma!!!† Were our own taxes paid in such coin, what little grumbling would there be!

Two other species of this genus, besides the common louse, are, in this country, parasites upon the human body.—But already I seem to hear you exclaim, “Why dwell so long on creatures so odious and nauseating, whose injuries are confined to the *profanum vulgus*? Leave them, therefore, to the canaille—they are nothing to us.” Not so fast, my friend—recollect what historians and other writers have recorded concerning the *Phthiriasis* or pedicular disease, and you must own that, for the quelling of human pride, and to pull down the high conceits of mortal man, this most loathsome of all maladies, or one equally disgusting, has been the inheritance of the rich, the wise, the noble, and the mighty; and, in the list of those that have fallen victims to it, you will find poets, philosophers, prelates, princes, kings, and emperors. It seems more particularly to have been a judgment of God upon oppression or tyranny, whether civil or religious. Thus the inhuman Pheretima mentioned by Herodotus, Antiochus Epiphanes, the Dictator Sylla, the two Herods, the Emperor Maximian, and, not to mention more, the great persecutor of the Protestants, Philip the Second, were carried off by it.

I say by this malady, or *one equally disgusting*, because it is not by any means certain, though some learned men have so supposed, that all these instances, and others of a similar nature, standing also upon record, are to be referred to the same specific cause; since there is very sufficient reason for thinking that at least *three* different descriptions of insects are concerned in the various cases that have been handed down to us under the common name

* Leeuw. Epist. 98. 1696.

† Bingley, Anim. Biogr. first edition, iii. 437. St. Pierre's Studies, &c. i. 312.

of *Phthiriasis*. As the subject of maladies connected with insects, or produced by them, is both curious and interesting, although no writer, that I am aware of, has given it full consideration, and at the same time falls in with my general design, I hope you will not regard me as guilty of presumption, and of intruding into the province of medical men, if I enter rather largely into it, and state to you the reasons that have induced me to embrace the above hypothesis, leaving you at full liberty to reject it if you do not find it consonant to reason and fact. The three kinds of insects to which I allude, as concerned in cases that have been deemed *Phthiriasis*, are *Pediculi*, *Acari*, and *Larvæ* in general.

As far as the habits of the genus *Pediculus*, whether inhabiting man or the inferior animals, are at present known, it does not appear, from any well-ascertained fact, that the species belonging to it are ever *subcutaneous*. For this observation, as far as it relates to man, I can produce the highest medical authority. "The louse feeds on the surface of the skin," says the learned Dr. Mead, in his *Medica Sacra*; and Dr. Willan, in his palmary work on *Cutaneous Diseases*, remarks, with respect to the body-louse, "that the nits, or eggs, are deposited on the small hairs of the skin," and that "the animals are found on the skin, or on the linen, and not under the cuticle, as some authors have represented." And he further observes, that "many marvellous stories are related by Forestus, Schenklius, and others, respecting lice bred under the skin, and discharged in swarms from abscesses, strumous ulcers, and vesications. The mode in which *Pediculi* are generated being now so well ascertained, no credit can be given to these accounts." Thus far this great man, who, however, supposes (in which opinion Dr. Bateman concurs with him) that the authors to whom he alludes had mistaken for lice some other species of insects, which are not unfrequently found in putrefactive sores.

If these observations be allowed their due weight, it will follow, that a disease produced by animals residing under the cuticle cannot be a true *Phthiriasis*, and therefore the death of the poet Alcman, and of Pherecydes Syrius the philosopher, mentioned by Aristotle, must have been occasioned by some other kind of insect. For, speaking of the lice to which he attributes these catastrophes, he says that "they are produced in the flesh in small pustule-like tumours, which have no pus, and from which, when punctured, they issue."* For the same reason, the disorder which Dr. Heberden has described in his Commentaries, from the communications of Sir E. Wilmot, under the name of *Morbus Pedicularis*, must also be a different disease, since, with Aristotle, he likewise represents the insects as inhabiting tumours, from which they may be extracted when opened by a needle. He says, indeed, that in every respect they resemble the common lice, except in being

* Hist. Animal. l. 5. c. 31.

whiter; but medical men, who were not at the same time entomologists, might easily mistake an *Acarus* for a *Pediculus*.*

Dr. Willan, in one case of *Prurigo senilis*, observed a number of small insects on the patient's skin and linen. They were quick in their motion, and so minute that it required some attention to discover them. He took them at first for small *Pediculi*; but under a lens they appeared to him rather to be a nondescript species of *Pulex*;† yet the figure he gives has not the slightest likeness to the latter genus, while it bears a striking resemblance to the former. It is not clear whether his draughtsman meant to represent the insect with six or with eight legs: if it had only six, it was probably a *Pediculus*; but if it had eight, it would form a new genus between the *Acaridæ* and the hexapod *Aptera*. Dr. Bateman, in reply to some queries put to him, at my request, by our common and lamented friend Dr. Reeve, relates that he understood from Dr. Willan, in conversation, that the insect in question jumped in its motion. This circumstance he regards as conclusive against its being a *Pediculus*; but such a consequence does not necessarily follow, since it not seldom happens that insects of the same genus either have or have not this faculty; for instance, *Cyphon hemisphæricus*, *Acarus scabiei*, &c.

Dr. Willan has quoted with approbation two cases from Amatus Lusitanus, which he seems to think correctly described as Phthiriasis. In one of them, however, which terminated fatally, the circumstances seem rather hyperbolically stated—I mean, where it is said that two black servants had no other employment than carrying baskets full of these insects to the sea!! Perhaps you will think I draw largely upon your credulity, if I call upon you to believe this; I shall therefore leave you to act as you please. Thus much for pure Phthiriasis, which term ought to be confined to maladies produced by *lice*.—I shall only further observe, that, as many species as exist of these, which are the causes of disease, so many kinds of Phthiriasis will there be.

Acari, or mites, are the next insect sources of disease in the human species, and that not of one, but probably of many kinds, both local and general. They are distinguished from *Pediculi* not only by their form, but also often by their situation, since they frequently establish themselves under the cuticle. With respect to local disorders, Dr. Adams conjectures that *Acari* may be the cause of certain cases of ophthalmia. Sir J. Banks, in a letter to that gentleman, relates that some seamen belonging to the Endeavour brig, being tormented with a severe itching round the extremities of the eye-lids, one of them was cured by an Otaheitan

* From the terms employed by Aristotle and Dr. Mead in their Account of these cases, it does not appear that the animal they meant could be a maggot, but something bearing a more general resemblance to lice.

† On Cutaneous Diseases, 87, 88; and t. 7. f. 4.

woman, who, with two small splinters of bamboo, extracted from between the *ciliae* abundance of very minute lice, which were scarcely visible without a lens, though their motion, when laid on the thumb, was distinctly perceived. These insects were probably synonymous with the *Ciron des paupières* of Sauvages.*—Le Jenne, a French physician quoted in Mouffet, describes a case, in which what seems a different species, since he calls them rather large, infested the white of the eye, exciting an intolerable itching.† Dr. Mead, from the German Ephemerides, gives an account of a woman suckling her child, from whose breast proceeded very minute vermicles.‡ These were probably Acari, and perhaps that species which, from its feeding upon milk, Linné denominates *A. Lactis*. The great author last-mentioned describes an insect, a native of America, under the name of *Pediculus ricinoides*, which, upon the authority of Rolander, he informs us gets into the feet of people as they walk, sucks their blood, oviposits§ in them, and so occasions very dangerous ulcers. It would be an *Acarus*, he observes, but it has only six legs. Now Herman affirms, that some species of *Trombidium* (a genus separated by Fabricius from *Acarus*) have in no state more than six legs.|| Others of the tribe of *Acaridae*, and the insect in question amongst the rest, may be similarly circumstanced; or those that Rolander examined might have been larvæ, which in this tribe are usually hexapods.

Linné appears to have been of opinion that many contagious diseases are caused by Acari.¶ How far he was justified in this opinion I shall not here inquire; facts alone can decide the question, and observations made by men acquainted with entomology as well as the science of diseases. Considerable deference and attention, however, are certainly due to the sentiments of so great a naturalist, in whom these necessary qualifications were united in no common degree. With respect to the dysentery and the itch, he affirms that this had been manifested to his eyes. You will wish probably to know the arguments that may be adduced in confirmation of this opinion; I will therefore endeavour to satisfy you as well as I am able. The following history, given by Linné, seems to prove the dysentery connected with Acari.

Rolander, a student in entomology, while he resided in the house

* On Morbid Poisons, 306, 307.

† Mouffet, 267.

‡ Medica Sacra, 104, 105.

§ It is to be hoped this new word may be admitted, as the *laying of eggs* cannot otherwise be expressed without a periphrasis. For the same reason its substantive *oviposition* will be employed.

|| Mem. apterologique, 19.

¶ Insecta ejusmodi minutissima, forte *acaros* diversæ speciei causas esse diversorum morborum contagiosorum, ab analogia et experientia hactenus acquisita, facili credimus negotio. *Amen. Ac. v. 94.*

of the illustrious Swede, was attacked by the disease in question, which quickly gave way to the usual remedies. Eight days after it returned again, and was, as before, soon removed. A third time, at the end of the same period, he was seized with it. All the while he had been living like the rest of the family, who had nevertheless escaped. This, of course, occasioned no little inquiry into the cause of what had happened. Linné, aware that Bartholinus had attributed the dysentery to *insects*, which he professed to have seen, recommended it to his pupil to examine his *faeces*. Rolander, following this advice, discovered in them innumerable animalcules, which, upon a close examination, proved to be Acari. It was next a question how he alone came to be singled out by them; and thus he accounts for it. It was his habit not to drink at his meals; but, in the night, growing thirsty, he often sipped some liquid out of a vessel made of juniper wood. Inspecting this very narrowly, he observed, in the chinks between the ribs, a white line, which, when viewed under a lens, he found to consist of innumerable Acari, precisely the same with those that he had voided. Various experiments were tried with them, and a preparation of rhubarb was found to destroy them most effectually. He afterwards discovered them in vessels containing acids, and often under the bung of casks.* In the instance here recorded, the dysentery, or diarrhoea, was evidently produced by these Acari; but it would be going too far, I apprehend, to assert that they are invariably the cause of that disease.

That *Scabies*, or the itch, is occasioned by an *Acarus*, is not a doctrine peculiar to the moderns. Mouffet mentions *Abinzoar*, called also *Avenzoar*, a celebrated Hispano-Arabian physician of Seville, who flourished in the twelfth century, as the most ancient author that notices it. He calls these Acari little lice that creep under the skin of the hands, legs, and feet, exciting pustules full of fluid.† Joubert, quoted by the same author, describes them under the name of *Sirones*, or mites, as always being concealed beneath the epidermis, under which they creep like moles, gnawing it, and causing a most troublesome itching. It appears that Mouffet, or whoever was the author of that part of the *Theatrum Insectorum*, was himself also well acquainted with these animals, since he remarks that their habitation is not in the pustule but near it. A remark afterwards confirmed by Linné,‡ and more recently by Dr. Adams.§ In common with the former of these authors, Mouffet further notices the effect of warmth upon them in exciting

* *Amœn. Ac. v. 94-98.*

† Mouffet, 266.

‡ *Acarus sub ipsa pustula minimè quærendus est, sed longius recessit, sequendo rugam cuticulæ observatur. Amœn. Ac. v. 95. not. **.*

§ *Observations, &c. 296.*

motion.* Our intelligent countryman also observes that they cannot be *Pediculi*, since they live under the cuticle, which lice never do.† In the epistle dedicatory, the editor speaks also of these *Acari* as living in burrows which they have excavated in the skin near a lake of water; from which if they be extracted with a needle, and put upon the nail, they show, in the sun, their red head and the feet with which they walk.‡ And, to close my *veteran* authorities, Junius thus explains the word *Acarus*, as I find him quoted in Gouldman's useful Dictionary, "A small worm, which eats under the skin, and makes burrows in itching hands."§

In more modern times, microscopical figures have been added to descriptions of the insect. Bonomo first furnished this valuable species of elucidation. His figures, however, which are copied by Baker in his work on the microscope, are far from accurate.|| Those of De Geer and Dr. Adams are much more satisfactory, and mutually confirm each other.¶ From them it is evident that the same insect inhabits the scabies of Sweden and Madeira. Dr. Bateman, in the letter before alluded to, informs his correspondent that he had seen that from Madeira, and gives it as his opinion that there cannot be a doubt of the existence of an *Acarus Scabiei*; an opinion which he repeats in his late work on Cutaneous Diseases. From all this we may regard the point as so far settled, that such an animal exists at least as an occasional concomitant of scabies.

This fact being ascertained, a more complex inquiry remains, which branches out into two distinct questions. Is scabies always produced by these insects? or, if this be not the case, Is the *animate* scabies a distinct disease from the *inanimate*?

It is very remarkable that Linné, a physician as well as a naturalist, and De Geer, one of the most accurate observers that ever existed, should both assign the insect in question as the undoubted cause of the *common* scabies of their country; the one applying to

* Extractus aëre et super ungue positus, movet se si solis etiam calore adjuvetur. *ubi supr.* Ungui impositus vix movetur: si vero oris calido halitu affletur, agilis in ungue cursitat. *Fn. Succ.* 1975.

† Neque Syrones isti sunt de pediculorum genere, ut Joannes Langius ex Aristotele videtur asserere: nam illi extra cutem vivunt, hi vero non. *ubi supr.*

‡ Imo ipsi *acari* præ exiguitate indivisibiles, ex cuniculis prope aquæ lacum quos foderunt in cute, aëre extracti et ungue impositi, caput rubrum, et pedes quibus gradiuntur ad solem produnt. p. vi.

§ *Teredo* sive *exiguus* vermiculus, qui subter cutim erodit agitque cuniculos in pruriginosis manibus. Gouldman tells us these *acari* were also called *hand-worms*. Another English name is given in Muffet, viz. *wheale-worms*.

|| Osservazioni intorno à pellicelli del corpo umano fatte dal Dottor Gio Cossimo Bonomo, &c. f. 1-3. Baker on Microsc. i. t. 13. f. 2.

¶ De Geer, vii. t. 5. f. 12-14.

the disease he was speaking of the epithet of *communissima*, and observing the fact to be notorious, (*cuique liquet*,) and the other designating it by its well-known French name "*La Gale*."* And is it not equally remarkable that such men as John Hunter, Dr. Heberden, Dr. Bateman, Dr. Adams, and Mr. Baker, should never, in this country, have been able to meet with it? Did it indeed exist in our common scabies, it seems impossible that it could have escaped the observation of the two last of these gentlemen; Dr. Adams being so well qualified to detect it from his observations in Madeira, and Mr. Baker from his expertness in microscopical researches. Dr. Bateman, in the letter above quoted, says, "I have hunted it with a good magnifier, in many cases of itch, both in and near the pustules, and in the red streaks or furrows, but always without success." In his work on Cutaneous Diseases, he tells us, however, that he has seen it, in one instance, when it had been taken from the diseased surface by another practitioner. And, though Dr. Willan, in his book, speaks of the *Acarus* as the concomitant of this disease, yet his learned friend just mentioned observes, that he admitted that the insect was not to be found in ordinary cases, and indeed never seemed to have made up his mind upon the subject. When I was at Norwich last year (1812) Dr. Reeve very kindly accompanied me to the House of Industry there, to examine a patient whose body was very full of the pustules of this disorder; but, though we used a good magnifier, we could discover nothing like an insect. I must observe, however, that our examination was made in December, in severe weather, when the cold might, perhaps, render the animal torpid, and less easy to be discovered.

From the above facts, it seems fair to infer that this animal is not invariably the cause of scabies, but that there are cases with which it has no connection. Now, from this inference, would not another also follow, that the disease produced by the insect is specifically distinct from that in which it cannot be found? Sauvages and Dr. Adams are both of this opinion,† the former assigning to it the trivial name of *vermicularis*; and the latter proving, by very satisfactory arguments, that it is different from the other. If they were both *animate* diseases, but derived from two distinct species of animals, (for it seems not impossible that even our common itch may be caused by an *Acarus* more minute than the other, and so more difficult to find,) they would properly be considered as distinct species; much more, therefore, if one be *animate* and the other *inanimate*. Nay, this, I should think, would lead to a doubt

* I am informed by my learned friend Alexander Mac Leay, Esq. Secretary to the Linnæan Society, that, in the north of Scotland, the insect of the itch is well known, and easily discovered and extracted.

† This opinion Dr. Bateman thinks probably the true one. *Cutan. Dis.* 197.

whether even their *genus* were the same. I shall dismiss this part of my subject with the mention of a discovery of Dr. Adams, which seems to have escaped both Linné and De Geer—that the *Acarus Scabiei* is endowed with the faculty of leaping; (in this respect resembling the insect found by Willan in *Prurigo senilis* mentioned above,) for which purpose its four posterior thighs are incrassated.*

But, besides these *Acarine* diseases, there seems to be one (unless with Linné we regard the plague as of this class†) more fearful and fatal than them all. You will, perhaps, conjecture I am speaking of that described by Aristotle and Sir E. Wilmot as the Phthiriasis, and your conjecture will be right. But some think, and those men of merited celebrity, that *Acari* have nothing to do in these and similar cases, for that *maggots* were the parasites mistaken for lice. This, from the passage above quoted, appears to have been Dr. Willan's opinion; it was also Professor Murray's, to which, in the letter so often referred to, Dr. Bateman subscribes, adding, as a reason for excluding *Acari* from being concerned, that “they are too minute, and never have been seen in such numbers as to be mistaken for lice.” But both *Acari* and *Pediculi* vary in size, some of the former being larger than some of the latter. And allowing them to be ever so minute, yet when they issue in swarms, as mites from a cheese, they would be very visible, were it only from their motion. Besides, as they are furnished with legs, their motions resemble those of lice infinitely more than do the contortions of maggots. So that an *Acarus* would be deemed a louse much sooner by an unentomological observer than would a maggot. Whether *Acari* have ever been seen in such numbers as to be mistaken for lice, is the point in question; and therefore, by itself, cannot be admitted for a valid argument. Though *Acarus Scabiei* does not appear to swarm in ordinary cases, yet this is certainly no reason why other species may not do so. Where it has once made a settlement, how incredibly, and in how short a space of time, does the *Siro* or cheese-mite multiply! *Acarus destructor*, and many other species, are equally rapid in their increase.

I shall now produce two instances where *Acari* were evidently concerned. Dr. Mead, from the *German Ephemerides*, relates the miserable case of a French nobleman, from whose eyes, nostrils, mouth, and urinary passage, animalcules, of a red colour, and excessively minute, broke forth day and night, attended by the most horrible and excruciating pains, and at length occasioning his death. The account further says, that they were produced from his corrupted blood. This was probably a fancy originating in their red colour; but the whole history, whether we consider the

* Probably this *Acarus*, in the modern system, would form a distinct genus. Latreille places it in his *Sarcoptes* with the *Ac. passerinus*, L. Latr. Gen. i. 152. 2.

† *Amæn. Ac.* ubi. supr. 101.

size and colour of the animals, or the places from which they issue, is inapplicable to *larvæ* or maggots, and agrees very well with *Acari*, some of which, particularly *A. autumnalis*, are of a bright red colour. The other case, and a very similar one, is that recorded by Mouffet of Lady Penruddock; concerning whom he expressly tells us, that Acari swarmed in every part of her body—her head, eyes, nose, lips, gums, the soles of her feet, &c., tormenting her day and night, till, in spite of every remedy, all the flesh of her body being consumed, she was at length relieved by death from this terrible state of suffering. Mouffet attributes her disease to the *Acarus Scabiei*; but, from the symptoms and fatal result, it seems to have been a different and much more terrific animal. He supposes, in this instance, the insect to have been generated by drinking goat's milk too copiously. This, if correct, would lead to a conjecture that it might have been the *A. lactis*, L.

THE following passage, from the Abbé Raynal's History of the European Settlements in the East and West Indies, published at least forty years ago, will not prove uninteresting to our readers. Though it may not be correct in every point, it is sufficient to show that the lately revived custom of frequent bleeding in the early stage of yellow fever was the common practice till unhappily superseded by the doctrine, or rather the language, of typhus.

“ The Americans seem to have been destined by nature to a greater share of happiness than the Europeans. In the islands are scarcely known such diseases as the gout, gravel, stone, apoplexies, pleurisies, complaints of the chest, and other disorders, which winter occasions: None of those scourges of the human race, which are so fatal in other countries, have ever made the least ravages there. If the air of the country can be withstood, and the middle age be attained to, this is sufficient to insure a long and happy course of life. There, old age is not tottering, languishing, and beset with those infirmities which affect it in our climate.

“ In the Caribbees, however, new-born infants are attacked with a disease which seems peculiar to the torrid zone: it is called *tetanos*. If a child receives the impressions of the air or wind, if the room where it is just born is exposed to smoke, to too much heat or cold, the disorder shows itself immediately. It begins by seizing the jaw, which becomes rigid and fixed, so as not to be opened. This spasm soon communicates itself to the other parts of the body; and the child dies for want of being able to take nourishment. If it escapes this danger, which threatens the nine first days of its existence, it has nothing to fear. The indulgences which are allowed to children before they are weaned, which is at the end of twelve months, such as the use of coffee, chocolate, wine, but especially sugar and sweetmeats; these indulgencies, that are so pernicious to our children, are offered to those of

America by nature, which accustoms them in early age to the productions of their climate.

The fair sex, naturally weak and delicate, has its infirmities as well as its charms. In the islands, they are subject to a weakness; an almost total decay of their strength; an unconquerable aversion for all kind of wholesome food, and an irregular craving after every thing that is prejudicial to their health. Salt or spiced food is what they only relish and desire. This disease is a true cachexy, which commonly degenerates into a dropsy. It is attributed to the diminution of the catamenia in those women who come from Europe, and to the weakness or total suppression of that periodical discharge in Creoles.

“The men, more robust, are liable to more violent complaints. In this vicinity of the equator, they are exposed to a hot and malignant fever, known under different names, and indicated by hæmorrhages. The blood, which is boiling under the fervent rays of the sun, is discharged from the nose, eyes, and other parts of the body. Nature, in temperate climates, does not move with such rapidity, but that, in the most acute disorders, there is time to observe and follow the course she takes. In the islands, her progress is so rapid, that, if we delay to attack the disorder as soon as it appears, its effects are fatal. Thus it is that the patient, in the space of twenty-four hours, must be bled fifteen or eighteen times, while, in the intervals, he has recourse to other remedies. No sooner is a person seized with sickness, but the physician, the lawyer, and the priest, are all called to his bed-side.

“Most of those who survive these violent shocks, being exhausted by the manner in which they have been treated, recover very slowly, and with difficulty. Several fall into an habitual weakness, occasioned by the debility of the whole machine, which the noxious air of the country, and the little nourishment their food supplies, are not able to restore. Hence obstructions, jaundice, and swelling of the spleen, are produced, which sometimes terminate in dropsies.

“Almost all the Europeans who land in America are exposed to this danger, and frequently the Creoles themselves, on their return from more temperate climates. But it never attacks women whose blood has the natural evacuations; and negroes, who, born under a hotter climate, are inured by nature, and prepared by a free perspiration, for all the ferments that the sun can produce.

“It is certainly owing to the sun, the heat of whose rays, being less oblique, and more constant than in our climates, occasions these violent fevers. Its heat must inevitably produce a thickening of the blood, through the excess of perspiration, a want of elasticity in the solids, a dilatation of the vessels by the impulse of the fluids, whether in proportion to the rarefaction of the air, or the less degree of compression which the surface of the bodies is exposed to in a rarefied atmosphere.

“Some of these inconveniencies might, perhaps, be prevented, by purging and bleeding on the passage, as we advance toward the torrid

torrid zone, by repeating these precautions in the islands, and by the use of the cold bath.

“ But, far from having recourse to these expedients, which reason indicates, the inhabitants fall into such excesses, as are most likely to hasten and increase the disorder. The strangers who arrive at the Caribbees, excited by the entertainments they are invited to, the pleasures they partake of, and the kind reception they meet with, give themselves up to an immoderate indulgence of all the pleasures which custom renders less prejudicial to those who are born under this climate. Feasting, dancing, gaming, late hours, wines, cordials, and frequently the chagrin of disappointment in their sanguine expectations, conspire to add to the ferment of an immoderate heat of the blood, which soon becomes inflamed.

“ With such indulgence, it is scarce possible to resist the heats of this climate; and even the greatest precautions are not sufficient to secure persons from the attack of those dangerous fevers; seeing the most sober and moderate men, who are the most averse to every kind of excess, and the most careful in all their actions, are victims to the new air they breathe. In the present state of the colonies, of ten men that go into the islands, four English die, three French, three Dutch, three Danes, and one Spaniard.

“ When it was observed how many men were lost in these regions, at the time they were first occupied, it was generally thought, that the states who had the ambition of settling there, would be depopulated in the end.”

WE extract the following article from the last volume of the Transactions of the London College of Physicians; and cannot help remarking, that, had a similar case occurred in vaccination under a less attentive practitioner, it might have passed for an unsuccessful instance of the prophylactic power of that operation.

A Case of Natural Small-pox, occurring several Years after Inoculation with Variolous Matter; in consequence of the Progress of the inoculated Pustules being interrupted. By Mr. MILLINGTON.

Mr. L———’s child, of Castle-street, Oxford Market, was inoculated by me with small-pox matter; and, at the same time, and with the same sort of matter, I inoculated one of his lodger’s children. At the period of four days, the punctures, two in number, on one arm, appeared a little raised and inflamed, which insured that I should have the proper effect produced. On the ninth day after the insertion of the matter, I called on the child, and observed to the parents that the pustules on the arm had been interfered with, for they were burst: they were quite unacquainted with the cause, but supposed the child had scratched the arm in the night. I saw the child the following day, and inquired if she had been ill; they did not know that she had been so, but were doubtful. No eruption followed, and the child was not, as I informed the parents, secured from future infection from small-pox. But they were

were of the opinion that the child had the disease satisfactorily, and would not consent to have it re-inoculated. The lodger's child, that was inoculated at the same time with the aforesaid child, did not appear to be affected by the matter till after the period of 16 or 18 days, about which time the incisions took on inflammation, and produced the symptomatic fever, as also a plentiful crop of eruptions, that continued about a week, and went off in the usual manner. Several years after this transaction, the father of the child that had been inoculated, and that had not had any eruption or fever, called on me one evening about dusk, and begged me to go with him to see his child, that was at that time extremely unwell, with fever and delirium. When I saw the child, I inquired if she had ever had the small-pox; he smiled, and said I had inoculated her some years before with the small-pox. I then recollected the circumstance, and gave it as my opinion, that the eruptions that were then coming out were small-pox. The next day it was put beyond all doubt; the child had a heavy crop of pustules, and suffered considerably during the disease, but recovered very well.

CRITICAL ANALYSIS

OF RECENT PUBLICATIONS.

—

An Experimental Inquiry into the Nature, Cause, and Varieties of the Arterial Pulse; and into certain other properties of the larger Arteries in Animals, with Warm Blood; illustrated by Engravings; by CALEB HILLIER PARRY, M.D. F.R.S. Member of the College of Physicians, London; &c. &c.—Underwood, 1816.

IT was a notion which formed a part of ancient physiology, that the arteries were a system of channels, destined to convey animal spirits to the different parts of the body. Modern physiology may boast an advantage over the ancient, inasmuch as it has been fully ascertained, that, although the arteries may not be without their spirits, they certainly do convey blood. It is not for want of labour or ingenuity, for both have been lavished on the subject, that we are almost under the necessity of contenting ourselves with this gentle boast; but it is, we apprehend, owing to some certain difficulties which are common in matters of inference, that this labour and this ingenuity have been attended with so few other unequivocal results.

In points where absolute certainty is unattainable, it is perhaps better to entertain a positive belief, although that belief may be erroneous, than, unsatisfied, to be perpetually fermenting our wits, in order to strengthen our conviction. So far the ancients had the advantage of us; for, with them, the leapings of the arteries were a sort of pastime and recreation,

creation, in which their spirits were prone to indulge ; but we, suffering under the curse of a little knowledge, have discovered that these same leapings may be as well attributed to the blood, as to the spirits, of the arteries ; and the ardour of research has served but to multiply the intricacies which it aspired to obviate.

It was thought by the discoverer of the circulation, that the whole mass of blood was propelled through its several channels by the force which the heart alone exerted in the motion which is termed its systole. Copious and learned were the disquisitions which followed the promulgation of this discovery. Spiritualists, mechanists, chemists, and even poets, have said or sung upon this theme, each of them in their own way. At length the alternatives were simplified ; and the labours of our fore-fathers have left us now to decide, whether the circulation is performed by the mere action of the heart ; or whether the arteries, imitating the action of the heart, contribute by their contractions and dilatations, to accomplish the same end.

Since the time of Haller, it has been commonly believed that arteries possessed an independent power of action ; the faculties of contraction and dilatation were thought to be distinguished by every person who could feel a pulse. The possession of these faculties came, however, in time to be denied ; and the motions of the arteries were said to consist only of a change of place. It was in this state of the question, when each of the above alternatives had its advocates ; when some believed that an artery contributed towards the circulation, by a contraction and dilatation of its parietes ; others asserting, at least, that an artery was capable of contraction and dilatation ; and others agreeing in the opinion, that an artery had no other than a loco-motion ; this was the state of the question, when the further elucidation of it was undertaken by the respectable author of the work before us.

Dr. Parry relates a series of experiments, which, as they are very numerous, our limits will not permit us to follow in detail. It must suffice, therefore, for the present, to give the following general description. The experiments were made upon sheep, rabbits, and horses. They consisted commonly in denuding one or both carotids, an aorta, or a femoral artery ; and in observing their motions under different circumstances, as under the action of one ligature, or of two ligatures, with the naked eye, with the aid of a magnifier, &c. The result of this examination is, that in no instance, by the minutest scrutiny, could any pulsation, consisting of contraction and dilatation, be discerned. It was seen that an artery was not perfectly quiescent, but that its movements were those only of elongation and recovery.

tion of the faculty of contraction, which is synchronous with the termination of life.

The tonic and elastic powers of arteries are opposed to each other in their respective actions, and both are liable to be overcome by the distending force of the blood. An artery unduly contracted by the tonic power, this ceasing, recovers its caliber by its elasticity, as after death; and the momentum of the blood prevailing, the artery is said to be kept in a forced state, in which the tonic power which would contract, and the elastic which would preserve the uniformity of its area, are inadequate to oppose the cause of distention. The author limits the power of the middle coat of arteries to that of contraction, affirming that there is no evidence of a power of elongation by which these vessels might be dilated, except by their elasticity, and by the momentum of the blood.* We cannot entirely acquiesce in this conclusion, since it appears irreconcilable with some of the most conspicuous and generally acknowledged phenomena of inflammation; we allude chiefly to that perceptible enlargement of the arteries, which takes place in this process. The inflammation may be excited in the finger by the puncture of a needle, or by any foreign substance lodged under the nail. We would ask, what relation is there between such a cause of injury and the *elastic* power of arteries, which is the only one assigned by Dr. P., except the distending one of the blood, capable, under any circumstances, of increasing their caliber? We are assured that such foreign substance has no relation with the elasticity of an artery, this being a property of dead matter, and the same cause being attended in the dead subject with no such effect. Nor can we imagine that the foreign substance has any direct relation with the blood, by which a greater quantity than natural of this fluid is poured into the digital arteries, thereby distending them; this cannot be imagined, because the blood is passive. The cause of dilatation must be looked for then in the arteries themselves; and if it happens neither by their tonic power, nor by their elastic power, a third must be inferred, which, in agreement with the perceptible phenomena, might be called one of dilatation. That a similar power alternates with one of contraction in the heart itself, we are inclined to believe, as well from some observations of disease, as from the forcible dilatations of the ventricles which we have witnessed in a large animal, a few minutes after death, from loss of blood. But, as we are not aware of an accurate measurement having been made,

* Page 79, 80, &c.

the design of which was to ascertain the comparative dilatation of the ventricles during the action of the heart, in an animal just deprived of its blood; and that degree, which, in the state of entire death, is preserved by the elastic powers of the heart,—we cannot, whilst the fact is thus undecided, affirm positively the conclusion which must be founded upon it.

The fourth section, and not the least interesting, treats “of the nature and cause of the arterial pulse.” We cannot follow our author through the whole of this discussion; it must suffice, therefore, in a general way, to state the facts and conclusions maintained in this part of the subject. Dr. P. has frequently denuded the arteries of various animals, the result of which has been, that these vessels have appeared uniformly nearly in a state of rest. An artery, upon exposure, may be seen to be elongated and to recover its place; but in no instance, it is stated, are an alternate contraction and dilatation to be perceived. This fact, which has been remarked by many preceding physiologists, and which we shall consider at some length, is the basis of the explanation of the pulse afterwards proposed.

The evidence in regard to the fact, is of the following kind:—If an artery contracted and dilated, these motions would be seen when the vessel is exposed to the eye. Then the fact opposed to this is, that the contractions and dilatations of an artery may be felt, although they cannot be seen. Here is the testimony of one sense opposed to that of another:—which are we to prefer? In the first, the vessel is deprived of its covering, and so far is in a preternatural condition: in the second, there is no removal, no disturbance; a sense of contraction and dilatation is perceived by the finger, while the vessel is covered by its skin; and is, in every respect, save that it may be slightly compressed, in a natural state. If it be objected that the sense of touch is not applicable in this case, because touch implies pressure, it may as fairly be said that the sense of vision is inapplicable, because it requires that the natural covering of the vessel should be removed. But the author denies the efficiency of a covering to the artery in giving the pulse; observing, that “no one ever felt a pulse the better because a thick garment, or a steel gauntlet, intervened between the artery and the finger.”* There is, however, this trifling difference between the natural covering of a vessel and a steel gauntlet, viz. that through the one the pulse might be

* Page 100.

felt distinctly, while through the other it cannot be felt at all.

Dr. Parry cannot imagine how the interposition of integuments can contribute towards the occurrence of contractions and dilatations in an artery; and that therefore the test of vision is the only one to be relied on. We know, from a thousand familiar instances, that the vital properties of any structure are liable to be influenced by a mechanical or chemical relation, either with adjoining parts, or with external agents. We see how vital properties first, and then the secretions, are changed by the admission of air into cavities. We would ask how long an animal may survive a simple exposure, without injury or profuse loss of blood, of the spinal marrow, of the brain, the heart, or even of the abdominal viscera? In truth, the function of every part that is covered, will be more or less influenced by a removal of its covering. It may be difficult to define with precision, the nature and varieties of this relation; but that such a relation exists, is sufficient to diminish our reliance upon results, proposed as natural, which are seen to take place only under preternatural circumstances.

But, in a question on the actions of arteries, it is not difficult to particularize a mode in which these actions may be dependent upon their coverings, setting aside the force of the general relation just now suggested. When an artery is covered by skin, a certain degree of pressure is made upon it, the effect of which will be to prevent an overstretching of its muscular fibres by the force of the circulation.* When this covering is removed, the dilatation of the artery being no longer resisted, the blood distends it beyond the scope of its contractile power; and hence the tube in this place is kept, by a permanent distention, nearly in a state of rest. Nor can this explanation of the want of pulse in a denuded artery, be easily refuted; because, for the purpose of measurement, or a testimony of the visible kind, the artery must be placed in the state which involves our objection, namely, in one when deprived of its covering. That this remark is not without foundation, seems evident both from its being supported by many analogies in muscular phenomena, as well as from the following order of the facts—an artery felt through the skin, contracts and dilates;

* Such an effect of pressure is, in some degree, exemplified by the removal of that of the atmosphere, as in cupping, &c.; and the continued bleeding which follows the bite of a leech, evinces for how considerable a time the contractile power of an artery may be suspended by an undue dilatation.

remove the skin, it no longer contracts and dilates; interpose, as was suggested by Mr. Hunter, another medium, as an equivalent for skin, (tending equally to resist undue dilatation,) and then the contractions and dilatations of the vessel will become evident to both senses. It is but just to exhibit the author's explanation of the arterial pulse, in his own words:—

“When, by the contraction of the left ventricle, the blood included in it is forcibly expelled into the aorta, all these columns receive the shock of propulsion at the same instant. But the velocity, during this systole, being greater than during the diastole, the momentum, and consequently the impulse, in every direction, is also greater in the systole. When, therefore, an artery is compressed with the fingers in the usual mode of feeling the pulse, the blood, in consequence of the systole rushing into the artery with an increase of momentum, gives a stronger impulse of dilatation to the fingers than from the less momentum, which exists during the diastole, and thus produces the phenomenon of the pulse.”*

Upon comparison of the pulse of arteries, situated at different distances from the heart, as of the radial and the temporal, or the inguinal and the carotid, we have remarked that their dilatations and contractions are synchronous. Of the truth of the explanation of this circumstance, we are not perfectly satisfied. The blood may exist in the vessels in continuous columns; but, as the quantity thrown out from the left ventricle at each systole, must dilate the aorta and nearer vessels, sooner than those which are remote, the dilatation of the several arteries should be rather successive than simultaneous; by which we mean that some time must be lost in the propagation of an impulse by a jet of blood from the heart to the remotest arteries, through a multiplicity of channels, under every variety of flexure.

The author remarks, “the coats of the carotids are so firm, that, when either impelled against any soft substance, or simply moved out of their place, these arteries readily recede, suffering no reduction of diameter, and therefore giving no sensation of a pulse.”† This observation is made on the denuded carotid; but here again the result is different under an experiment as nearly similar as possible, while the integument is entire. Thus, if the finger is placed half an inch on the outer side of the carotid, in a thin subject, and pressure made against this vessel in the direction towards the trachea, the pulsation of the artery will be felt distinctly; and the same thing happens if the pressure is directed from the tracheal side of the artery, towards the mastoid muscle.

* Page 111.

† Page 112.

In both these cases the artery is displaced laterally, and not compressed between two resisting substances.

The author next proceeds to explain why a pulse, in some surgical operations, is not to be felt; which is, that, if an artery is compressed on one side, there being no resistance on the other, the tube will be only bent; and no reduction of caliber occurring, the pulse, which is said to depend upon such reduction, will not be distinguished. Hence, the identity of an arterial tube is at all times to be ascertained, either by placing some resisting substance beneath the artery, while the finger depresses it from above, or by compressing the artery between the finger and thumb. This remark deserves to be borne in mind, as one which might be eminently useful in an important branch of operative surgery. At the same time, we conceive the fact to prove only, that under this state of pressure, the undue dilatation of the artery before mentioned being prevented, a jet of blood, correspondent with the systole of the heart, is perceptible to the touch; while the fact neither proves the correctness of our author's explanation of the pulse, nor militates against that which we have opposed it. But, that an action of the artery itself takes place in the common instance of feeling a pulse, is also indicated by the sensation communicated to the finger, independent of any *à priori* reasoning. We feel that the artery, having struck the finger in its dilatation, immediately suffers a diminution, which does not arise from the external pressure. If an artery, in the case alluded to, suffered a reduction of its size from no other cause than the pressure of the finger, it should present to the touch a sense of constant distention, with a distinct impulse at each systole of the heart. Whereas, the artery is perceptible only at the moment of its dilatation, and then sinks so considerably, that the sense of its existence is lost until its dilatation is repeated.

If two fingers are laid on the radial artery of a thin subject, and rolled backwards and forwards, lightly, over the vessel, the sensation will be that of a tube uniformly distended; that is, the artery will not, by this mode of feeling it, appear to contract and dilate. But this mode of examination is not to be relied on; for, if a stronger degree of pressure is exerted, and the caliber of the artery half obliterated, still no sensation of a pulse will occur under a similar movement of the finger. This fact, militating alike against both theories, appears to shew only that such a mode of examination is not adapted for the purpose.

We confess, on the subject of the arterial pulse, we are not yet quite satisfied; we cannot, however, but bestow our warmest

warmest approbation upon the scientific manner in which Dr. Parry has conducted his inquiry. Our limits prevent a further examination of this part of the subject; we should otherwise draw out in array many other circumstances belonging to the physiology of arteries, with copious illustrations from disease, in support of that doctrine which we have professed ourselves unwilling to relinquish. We therefore conclude this extended article, with a short account of the fifth section, "on a further power of arteries."

Two cases are given, illustrated by neat engravings, of a power of reproduction, which, we believe, has never before been discovered to belong to the arterial trunks. Both carotids of a ram were tied on the 27th of September, 1815 (we presume 1814). On the 7th of August, 1815, this ram was killed and injected. The portion of the left carotid, obliterated by the ligature, was supplied "by five new ramifications, uniting, in different points, the extremity of the inferior portion of the old artery, with the superior portion;" and in this way was the circulation restored to its former channel. Although scepticism may urge many objections to considering these branches as new productions, we are in candour compelled to admit the fact. We think it next to impossible, that all these branches should have been overlooked at the time of tying the carotid, if they had existed previously to this operation. The fact is further confirmed by a second case of the same description, though a less perfect specimen than the last. The right carotid of a ram was tied on the 12th of October, 1814—the animal was killed on the 7th of September, 1815. Something more than two inches in length, of the original trunk, had disappeared, and three small branches united the extremities of the old artery. These branches were pervious, but not of a sufficient size to admit coarse injection. This is certainly a very interesting discovery; and we think it not improbable, as the attention of anatomists will now be directed to the point, but a similar provision for the re-establishment of the circulation, may at some future time be detected in the human subject. Indeed we see nothing in the fact which should either create astonishment, or excite the ardour of opposition. A process of a similar kind, but vastly more complex, takes place beyond all doubt in every example of extensive regeneration; as in the filling up and cicatrization of large ulcers, &c. where the vessels in the new growth, however numerous their anastomoses, communicate with the old trunks, through which their blood is received from, and returned to, the heart. We shall, we trust,

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at a future time, be gratified with additional examples of this important discovery.

The short, but pleasing duty, now remains, of recommending this work to the attention of our scientific readers. There are few, we apprehend, whose views of the subject it embraces, may not be improved by its perusal. Every page of it bears evidence of acute discernment, and of a superior talent for observation. We think, however, that the same results might have been obtained by fewer experiments; and, while we regret that the superstructure of medical science should at any time be built upon the blood and sufferings of animals, like ourselves endowed with the faculty of sensation, we earnestly wish that all those who engage in experimental inquiries of this nature, would recollect whether the facts they seek for, or equivalent ones, may not be acquired either by collateral evidence, or gleaned from the accumulated records of past experience.

[Contrary to our established custom, we have admitted the above without examination of the work itself. The source, however, from which we receive it is so respectable as to justify our confidence.—We shall, in a few numbers, endeavour to do justice to Dr. Parry's *Elements of Pathology*, which are at this time under review.]

An Essay on the Prevention and Cure of Insanity; with Observations on the Rules for the Detection of Pretenders to Madness. By GEORGE NESSE HILL, Medical Surgeon, and Surgeon to the Benevolent Institution for the Delivery of Poor Married Women in Chester. 8vo. pp. 445. Longman and Co. London.

THIS performance has hitherto somehow escaped us, but we need no apology for adverting to it so long after its publication. Not only the importance of the subject, the matured experience of the author, but the particular manner in which the public attention is at this time directed to this most unfortunate condition of the species, imperiously call upon us to add every source of information in our power. Mr. Hill's work evinces much reading, much industry, and, what is most to the purpose, we have every reason to believe, much faithfulness. There is, also, throughout, a great attempt at method; but in this we conceive the author has unhappily failed. We shall, however, pursue the plan by which he has arranged his labours, which, with occasional extracts, will prove the fairest means of submitting the merits of the whole to the judgment of our readers.

The introduction is principally directed to show the insufficiency

sufficiency of what has hitherto been published on madness. In this the author is, as might be expected, very successful. The unfinished publication of Dr. Arnold, the gloomy views of Pinel, the inconclusive though well-written treatise of Mr. Haslam, and several other writers, are glanced at with much candour, mixed with a sufficient air of sarcasm. The concluding part furnishes at once an insight into the author's intentions, and a foretaste of a verbosity which we confess became somewhat irksome before we had completed our task as reviewers.

"The reader," says Mr. Hill, "is particularly intreated to observe, that the two following axioms contain the principles which form the basis of the essay :

"First. That insanity is always a symptomatic disease.

"Secondly. That it is never a purely mental disease.

" 'There are some truths,' says the late learned Bishop of Cloyne, 'so near and obvious to the mind, that a man need only open his eyes to see them.' The foregoing axioms are two of this description: how far their justness of assumption will be supported by incontestible evidence, remains to be seen, during the investigation of the subject; for the present they must be admitted as probable truths—ultimate conviction may be obtained by faithfully subjecting the plan hereafter proposed to the test of experience, that *dernier* court from whence there is no appeal. At the same time it must not be forgotten, that the grand aim is an endeavour to illustrate practical truths that rely principally upon experience; and that 'it is not a thing so easy as is conceived to convey the conceit of one man's mind into the mind of another, without loss or mistaking, especially in notions new and differing from those that are received.' *Bacon*, v. i. p. 392.

"Whilst detailing my opinions and practice, with considerable hesitation, to the world, I have presumed to appreciate the generous indulgence of all who will give attention to the subject proportionate to its desert; thus will they meet a fair examination, finally to receive approval or condemnation, from the most impartial tribunal.

"The scope of this essay will be learnt from what has been already advanced, and the following deductions, which the success of the mode of treatment recommended, have fully established, viz.

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|----------|---|--|
| I. That | } has always corporeal disease for its foundation. | |
| Insanity | | |
| II. ——— | | } consists of but one species under two forms, viz. the STHENIC and ASTHENIC, or <i>Mania</i> and <i>Melancholia</i> . |
| III. ——— | | |
| IV. ——— | } is not a hereditary disease in the vulgar sense of the word, as commonly understood. § | |
| | } is as generally curable as any of those violent diseases most successfully treated by medicine. | |

§ Mr. Haslam, in attempting to form a table 'wherein might
no. 208.

The first chapter is inscribed, *Insanity has always corporeal disease for its foundation*. Though this may seem the ground-work of all the author's physiological and pathological reasonings, we shall dismiss it very shortly. First, because the chapter abounds with metaphysical reasonings from all sources, as well as from the author himself; and, next, because, in our opinion, the question is of little importance. If madness arises from an organic lesion in any part of the body, it can only be cured by the relief of that organ. If from some impression on the mind, it is of very little importance to consider whether the mind is corporeal or immaterial. Our remedies must be what are usually termed *moral*; that is, they must be directed to the passions in the best manner that we can find of inducing a just impression on the intellect. It cannot be questioned that the body will often suffer from impressions on the senses, or on the intellectual part, and must be attended to at the same time. On this subject we conceive more information is derived from the cases in the Appendix, than from our author's reasoning; but, as he has chosen to place those cases at the conclusion of his volume, we shall defer our remarks till we arrive at that part.

The second chapter is to prove that *Insanity consists of one species under two forms, viz. sthenic and asthenic, or mania and melancholia*. This is divided into ten sections—1st. That a disease under the same name may assume the sthenic as well as the asthenic form: a sthenic disease also passes very often into an asthenic. 2d. Contains the history of the sthenic or high form of insanity. 3d. On the termination of sthenic insanity. 4th. The history of asthenic or low form of insanity. 5th. The termination of the asthenic insanity. 6th. The predisposing causes of insanity. 7th. The proximate causes of insanity. 8th. The exciting causes of insanity. 9th. The lucid intervals, and partial insanity. 10th. The prognosis.

be seen the probable direct course of this disease, and also its collateral bearings,' tells us, 'difficulties have arisen.' Truly they will ever arise, for such a table neither can or ought to be formed, for the very reason he has given, viz. 'It appeared, on consideration, improper to attempt precision with that which was variable and as yet unsettled;' and, happily for mankind, will ever so remain. The few instances which Mr. H. with all his undoubted industry, zeal, and experience, in the most extensive field of observation, has been able to select, amount to nothing in proof of necessary hereditary insanity. The instance of M. M. was a case connected with menstruation; after the final secession of this evacuation she recovered, although she had been confined sixteen years. Haslam on Insanity, 2d edit."

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The first section has for its superscription a text from Struve's *Asthenology*. This, as we observed before, is only a specimen of the author's fondness for authorities. A few paragraphs at the commencement of the section will further illustrate this, and, perhaps, explain the author's meaning.

“ Two families of disease comprehend the whole, says a young ingenious writer, in the *Medical and Physical Journal*; and he has said rightly. Whatever reluctance may exist in the minds of some medical practitioners to allow the justness, truth, and precision of this simple but solid fact, the foundation upon which the statement rests will bear the most accurate examination, by which test alone can the results to which its adoption leads be justly appreciated. Objections may doubtless be made to any term or terms, however appropriate; but objectors have rarely been fortunate in the art of medicine, when attempting to establish one perfectly conclusive—witness all the futile endeavours to produce a perfect definition of insanity.

“ ‘ In diseases the excitement is seldom merely strengthened or merely weakened in the whole system, and the division into two principal forms is by consequence a wrong one.’ *Psaff on Brown*. This is certainly attempting to draw an important inference from very feeble premises: it is sufficient that no general disease exists, while equable excitement exists; but excess or defect having once taken place, disease is now present, of what force or kind being determined by other causes or changes not operating against the justness of the arrangement, general ideas, general terms, and correspondent notions must be entertained. The inequality of the excitement in various diseases ought not to nullify this useful leading and clear distinction. It must, however, be allowed, that the opposite diathesis comprehend some distinct branches, to which Dr. Brown paid no attention, as the peculiar states of the absorbent and nervous systems exemplify; but where is or ever was the architect who at once raised a perfect edifice? Is the Newtonian system a *ne plus ultra*?

“ Insanity affords no exception to this arrangement: every lunatic belongs to the high or low form, although it often happens that through mismanagement or some secret adventitious cause, a change takes place from one to the other. By the terms sthenic and asthenic nothing more is meant than the opposite states of the excitability of the system at large, at the period of insane attack; or, in the language of Dr. Battie, ‘ the morbid effects of anxiety (asthenic diathesis), or the preternatural excess of sensation’ (sthenic diathesis). ‘ Another effect of anxiety is the nervous disorder directly contrary to it, viz. insensibility; that is, a preternatural defect, or total loss of sensation’ (asthenic diathesis). *Treatise on Madness*, 1758, p. 58.

“ Mr. Meynel, the celebrated fox-hunter, amongst some other useful remarks on canine madness, observes, ‘ There are two kinds of madness, both of which he has known to originate from the bite

of the *same dog* (doubtless the difference of effect was determined by the state of predisposition of the subjects when bitten). 'Among huntsmen, one is known by the name of *raging*' (or the high form); 'the other by that of *dumb madness*' (or the low form). 'In the latter, the nether jaw drops, and is fixed; the tongue hangs out of the mouth, and slaver drops from it: in the former, the mouth is shut, except when the dog snaps or howls, and no moisture drops from it.' *Manchester Memoirs*, vol. 4.

"Many writers have advanced thus far—'Mania is a state of body opposed to melancholia.' Such writers, upon being questioned, would readily allow mania to be a sthenic disease; what then must be its opposite? Truly, asthenic, or, as the experienced author just quoted observes, 'Sensation *too greatly excited* by real objects and its contrary insensibility; or sensation *not sufficiently excited* by real objects, though acting with their usual force.' *Battie*, p. 33. Under one or other of these general forms every insane case ranges, nor is any other distinction useful or necessary; on the contrary, the almost endless shades of difference branched out into species by learned nosologists and metaphysicians have no one beneficial tendency, being only calculated to encumber science, disguise truth, render rugged and disheartening the paths of enquiry to young minds, and perplex all just propriety of distinction; affording a continued source of impediments to the acquirement of a better understanding of the disease called mental derangement, or that state of the human frame labouring under sthenic or asthenic disease, accompanied with a greater or less degree of aberration of the mental faculties. Vide the writings of Sauvages, Linnæus, Vogel, and Segar; or those of our countrymen, Cullen, Darwin, and Arnold. Some of these authors had so little mercy on the retentive faculties of their readers, as to give them no less than forty-five species of what they termed 'Maladies Morales;' but to Dr. Arnold it is sufficient to refer the reader, with the reflection of Locke before him—'He that shall consider after so much stir about genus and species, and such a deal of talk of specific differences how few words we have yet settled definitions of, may, with reason, imagine that those forms which there hath been so much noise about are only chimeras.' *Hum. Und.* B. 3. ch. 6. p. 389.

"'Πρόσθε λέων, ὄπιθεν δὲ δράκων, μέσση δὲ χίμαιρα.' 'Philosophers,' says old Burton, 'make eight degrees of heat and eight degrees of cold; but we might make eighty-eight degrees of melancholy.' 'It is of little consequence what physicians say of distinct species of diseases in their mootings and speculations.' *Anat. of Melan. Intro.* p. 9, 29. 'The arbitrary distributions of Sauvages and Cullen were better calculated to impress the conviction of their insufficiency, than to simplify my labour.' *Pinel on Insan.* p. 2. *Davis' Trans.*"

We shall offer also the two following paragraphs, as they seem

seem to compress the author's meaning into a shorter compass.

“Sthenic diathesis, when connected with insanity, corresponds with a state of too great mobility of brainular action, or the ‘strong nervous excitement’ of M. Pinel, and of the whole nervous system. Hence, while under this state of action, persons are not exposed to the consequences, although they may be to the influence, of the depressing passions: they are not only proof against such influence, but are carried incessantly onward, in despite of their most vigorous attack. ‘Raving and violence form its characteristics, and it is usually attended with some degree of fever, and often with a good deal of *bodily disorder.*’ *Arnold on Insanity, Pref. p. 20.*

“Thus is given a very fair description of the sthenic form of insanity, all ridiculous nosological distinctions apart. At page 23, the asthenic or opposite form is nearly as accurately depicted. Speaking of ideal insanity, he says, ‘It is always attended with symptoms of a disordered state of the brain and nervous system, and frequently with disorder in the stomach and hypochondriac region.’ See *Dr. Hull on the Nerv. System. Case by Mr. Home, Philos. Trans. 1801.* Hence it will be found that the asthenic diathesis conversely corresponds with a state of too great immobility; the sufferer is not to be raised by the joyous, exhilarating, or pleasurable passions, but he frequently becomes concentrated to a state which has been termed ‘*stupor vigilans.*’ ”

Some remarks follow on predisposition, in which the name of Haslam, Darwin, and Arnold, all occur in a single paragraph; but, as this appears to us an anticipation of a succeeding section, we shall dismiss it till it occurs in order.

We shall quote a short passage from the next section, on the terminations of sthenic insanity, and compare it with another in the foregoing section, before we offer a remark, to which we sincerely wish the author had been more attentive.

“Mania, or the sthenic form of insanity, very frequently terminates in the opposite form, or melancholia. Chronic incurable derangement, or fatuity, embraces a large proportion of its subjects. In paralytic affections as in Case, No. 16. *Append.* A few cases in sudden death, as from a stroke of apoplexy, Case No. 11. *Append.* The remainder of a given number are restored to health. Original neglect or bad treatment may produce or accelerate all the unfortunate terminations; sudden inanition destroyed numbers of wretched mortals at the *Asylum de Bicêtre.* In the year 1784, 57 died out of 110—1788, 95 out of 151; but when better fed, one in eight only was the annual proportion. *Pinel, p. 32.*

“Sthenic insanity is very readily and frequently converted into the asthenic, by great and sudden prostration of strength, the conjunct effect of various violent evacuations: the same mode of practice persisted in for a considerable length of time in a vigorous young

young subject, or for a shorter period in an older and less powerful one, will produce fatuity or paralytic affection. M. Pinel, with his accustomed sagacity, cautions practitioners against inattention to the dangerous facility which so often supervenes on the decline of mania; and justly observes, "it is a state requiring peculiar attention," to prevent, at this critical juncture, the increase of the insensibly list of acute and chronic lunatics."

"Chronic mania, originally seized under circumstances strictly acute, will endure, without noticing it, what would be a very inconvenient degree of heat or cold to a sane person."

Should another edition be called for, we submit it to the author whether it would not be better to make his division of mania into acute and chronic, and afterwards sub-divide each, particularly the latter, into its various forms. We admit, with him, that many of these sub-divisions have been unnecessary, and that the terms are often irksome, if not ridiculous; but where a practical difference occurs in the prognosis or mode of treatment, no one can question the importance of distinctly marking every distinction which may be made with any certainty. We must not, however, overlook one symptom, which Mr. Hill remarks in many of his cases, but which we do not recollect to have been generally noticed.

"The cutaneous glands and *cutis perspirabilis* in this [the chronic] form of insanity, become greatly altered, sometimes early in the disease, although not much noticed at any period: hence the odoriferous, like others of a severe nature, is found to have its peculiar alteration about ('*alve kurrum*') arising from the several excretions, and is more strikingly obvious to the olfactory sense of the observer under this form than the opposite. Bacon, v. 1, cap. 2, p. 166."

In every acute disease, the *perspiratio olida* has been attended to by the best physicians, and usually as a favourable symptom: we think our author not sufficiently decided in his remarks. We refer to his chapter on prognosis.

Mr. Hill considers the usual termination of asthenic insanity to be "apoplexy, palsy, epilepsy, dropsy, phthisis, chronic lunacy, and suicidal death, rarely in health, and usually by age, or in what may be termed natural sudden death." We cannot help thinking that all this might have been said of chronic insanity, instead of making it one of the terminations. We are the more confirmed in this opinion by the concluding sentence of the section, viz. "Moderns usually testify that lunatics generally speaking, inherit a morbid constitution. This can only be said of the chronic form of the disease."

The whole section on the predisposing cause of insanity appears

appears to us very much confused. The term predisposition, we are told, is understood to imply a state short of that state to which it tends, and incapable of giving that which it has not itself attained. This is illustrated by a case, which we shall transcribe.

“CASE XXVI.—Miss F., æt. 23, of a lively pleasant temper, generally healthy up to this period, of a robust form, received a severe blow on the back part of her head, as she was rising up suddenly, and had forgot a piece of timber above. She was not stunned at all, nor did she complain for several days. The frequent application of the hand to the stricken spot first excited notice; subsequently an alteration in her behaviour gradually followed. Accidents, or new circumstances of any kind, greatly affected her. Thus arose much inequality of temper, stupidity, inertness, and close silence. Occasionally, for a very short time, a volatile flightiness. The opposite situation was accompanied with a peculiar feeling in the head, wholly unknown before the blow. When this receded, which it would sometimes do instantaneously, at others slowly, her intellects seemed nearly, but never completely perfect. Twelve months subsequent to the accident, I first saw her, and took much pains with the case unsuccessfully. All her conduct seemed to depend upon the ebbs and flows of the peculiar feeling. Yet this conduct, however distressing, could not strictly be called madness, though the mind aberrated occasionally, from the result of local mischief, varying with all the varying states of the excitability independant of insane predisposition, yet illustrating what must have been the consequences had such predisposition existed at the time the blow was received. The lady remains precisely as she did in 1797.”

Whether this conduct could be called madness, we shall not take upon ourselves to determine; but we know not why it should be called predisposition to that malady. *Predisposition* seems to us something which *precedes* disposition, and disposition that state in which a part or the whole is so disposing itself as to take up a certain change. Every human embryo is *predisposed* to respiration; but the disposition does not take place without certain changes, after which respiration must follow. Every animal is *predisposed* to the propagation of the species; but the disposition does not exist till certain changes take place; in other words, till the age when certain parts are so *disposed* to take on that act. In disease, this is best illustrated in the contagious. All the human race is *predisposed* to receive the small-pox, but the disposition does not take place till the subject is exposed to the contagious matter, after which, in a given time, the diseased action follows. Hence it appears to us that all accidental causes should be rather said to excite the disposition in a subject having originally the predisposition. That is, these

these causes would produce only a slight, or, at most, only a temporary, effect in those who are not predisposed to high action of any kind, but in others would produce a disease correspondent to their original predisposition. In the next chapter, on the proximate cause of insanity, the author seems to admit all that we require.

“ Excessive mobility and immobility (says he) of the brain and nervous system are opposite states, constituting predispositional tendency to actual disease corresponding with excessive and defective excitability, but are insufficient to explain the proximate cause.”

If we understand this passage, it must mean that some *original* condition of the brain constitutes the *predispositional* tendency to madness. Mr. Hill continues—

“ The common definition of the proximate cause of a disease is ‘That which at present forms the disease, which, when changed, changes,—and which, when removed, removes, the disease:’ in fine, proximate cause is itself the disease, for, if absent, the disease is likewise absent; predisposition alone precedes disease, and this necessary state, together with the exciting cause, is all we can, in point of fact, be said (and that but partially) to know. Upon considering these facts with all the care they demand, it appears deducible that the *causa proxima* of insanity consists of a *peculiar* or *specific change in the power of accumulation* and *subsequent action of the subtle* ‘matter of nervous influence,’ of which we know so little, yet write and talk so much, which has been designated by a host of epithets unnecessary to enumerate. *Struve Asthenol.* p. 37.”

This specimen may serve to show how little is to be learned from this chapter, which, to do the author credit, is a very short one. To us, however, the proximate cause appears a most important consideration in all diseases: not, perhaps, the proximate cause of the disease, but of the more striking symptoms. Thus, if, after death from phrenitis, we see effusions, extravasations, and adhesions, and know that these are the usual progress of inflammation, we have now learned what are the proximate causes of the symptoms during life, and how to remove them should they occur in any future subject. After our former remarks, it will be unnecessary to say any thing on the section concerning the “exciting causes of madness.” The next, on lucid intervals, contains some very conclusive arguments on this important question. And the concluding division of this chapter, on the prognosis, is replete with very useful hints, though much novelty cannot be expected.

The third chapter is on insanity as an hereditary disease. Here our author might have saved much time, had he at-

tended to the distinctions we before marked out, and for which we are indebted to Dr. Adams's "Treatise on the Hereditary Peculiarities of the Human Race." That an uncertain number of individuals of certain families fall into certain diseases from very slight causes, cannot be questioned; but, as the number of individuals is uncertain, as the degree of susceptibility is uncertain, and as the exposure to the cause is not only uncertain, but may, in many cases, be prevented, we agree with our author that it is highly improper to make use of such expressions as hereditary *diseases* or hereditary *taints*. We wish, however, we could have found that perspicuity on so important a question which we expected to follow a reference to our distinguished English physiologist Mr. Hunter. We shall transcribe the paragraph, which, with our remarks, will give the fairest opportunity of illustrating the subject.

"Insanity (says Mr. Hill) may be acquired by accidents of a very violent nature, suddenly applied as exciting causes, acting upon a mild degree of lately acquired predisposition, e. g. The unaccustomed use and abuse of diffusible stimulus, deranged hepatic function, and some unexpected sudden action of one or more of the passions. Now, children born anteriorly to such a misfortune of their parent, (and it is not an uncommon one) cannot inherit insanity by hereditary predisposition. One of the most acute anatomists and able physiologists this country ever produced, said, on a solemn public occasion, 'There is no disease acquired which can be given to a child; *there is no such thing as an hereditary disease, but there is an hereditary disposition for a disease.*' *Hunter's Evidence on Donellam's Trial*, p. 51, fol. edit. Therefore all that can be said as to this disposition is, that insanity will be produced the more or less readily from similar causes, operating upon different bodies, in exact proportion as they are similar in resemblance from whatever stock they may have descended, all other causes favourably combining to produce the disease, which similarity does not happen one time in a thousand, but when it apparently does, the doctrine of hereditary disease is revived, but it does not, in fact, ever take place of mere necessity, even in connexions where the ancestry on both sides may have afforded cause of suspicion. It is rationally conclusive, then, that the belief in necessary, absolute, hereditary madness, is a most injurious unphilosophical tenet, and that all deductions founded thereon are hypothetically erected 'upon the supposition of a principle of whose existence there is no proof from experience.' Pure hereditary insanity and pure mental derangement rank equally in the number of gross errors."

Every reader must perceive, if not a contradiction, at least a confusion, in the above passage. It is enough that "these accidents of a violent nature are applied to a mild degree of predisposition, which predisposition must be original, and

not acquired." The diffusible stimuli, to adopt the above language, is an exciting cause, and produces the disposition; for no other cause is necessary to induce the disease, but a continued use of such stimuli. When Mr. Hunter says that no *acquired* disease can be given to a child, he must include madness *acquired* by the free use of stimulating liquors. Whether, therefore, the children are born anterior or posterior to madness acquired in this way, is of no consequence; nor, indeed, is it of the least importance whether children born of parents predisposed to madness are born before or after the predisposition has been excited into action, because the predisposition alone is hereditary, the existence of which is only proved, but not acquired, by the subsequent appearance of the disease.

The length of our remarks, and these copious extracts, render it inconsistent with our limits to dwell on the remaining chapter. It is principally confined to the cure, which may be considered by some as the most important part, but we trust that most of our readers are aware that the nature and history of a disease being known, the mode of treatment is readily understood. To use the words of our English Hippocrates—*Si morbi cujusdam historiam accurate scirem, par malo remedium haud dubitabo invenire*. It is enough to remark, in general, that we have found, in this part of the work, the directions rational, the remarks candid, and the inferences fair. We are particularly pleased with the cases contained in the Appendix. They seem collected with great attention, and narrated with as much brevity as is consistent with perspicuity.

We regret that the work abounds with many errors of the press, which, probably, arose from the distance at which the author was from his printer, and the want of a friend to revise the sheets after his correction. Some of these could never have been overlooked on any other terms. We shall instance only two, in order to show that our remark is not captious. In page 97 we read of "*uncommonly singular* dreams." Page 418, "A widow was left to conduct a large concern, with an only child, which she executed very cleverly: she was of a swarthy complexion, full eyed," &c. Nobody will suppose that she executed her child very cleverly; but many readers may doubt whether the mother or child was of a swarthy complexion, full eyed, &c. These, though trifling errors, very much deface a work which has evidently cost the writer much time and pains, and abounds with considerable information.

Edinburgh

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(Continued from p. 408.)

Art. II.—*Observations on the Utility of Blood-letting and Purgatives in a Fever which prevailed in the Russian Fleet.*
By D. J. H. DICKSON, M.D. F.L.S. Physician to the Fleet, and formerly Superintending Physician of his Imperial Majesty's Squadron in the Medway.

If the paper from this Journal, noticed in our last Number, showed some marks of youthful fervour, the present is not less distinguished by a gravity highly becoming the subject, and suited to the rank of Physician to the Fleet, &c. On the proofs in favour of the practice mentioned in the title we shall say less, because the question is now scarcely disputed; but there is a number of minuter points which we are glad to see in print, and some opinions on the doctrine of contagion, which we have now a happy opportunity of contrasting with the contents of the immediately preceding article.

We copy the following passage to show the unfortunate influence of *slang*, to use a maritime vulgarity, and to avoid a coarser word. The reader will perceive that we refer to the sentence within the inverted commas, which the author has offered as the language of his predecessors.

“ When (says Dr D.) I joined the fleet, the fever, in both instances, had become less typhoid; it was reported to me to be ‘synochus, frequently terminating in typhus, and death, if copious evacuations had not been had recourse to at an early period of the disease.’

“ It is highly important, here, to contrast the difference of symptoms under this practice, even in unfavourable cases, with those of the patients first received, which had not been controlled by depletion. The tongue was often parched, but not black; there was delirium, but not of the low muttering kind; subsultus tendinum, but without great nervous tremor; seldom involuntary discharges, and no strabismus, nor those appearances of putrescency which mark the close of malignant fever. It appears to me, therefore, an inevitable conclusion, that, by those remedies which repress inflammatory action at the commencement, those graver, or eminently typhoid symptoms, which characterize the advanced stage of such fevers, were prevented. But I am not anxious to designate the disorder, since it has been but too common to connect with the name peculiar ideas of a disease, modifying the treatment, which ought alone to be regulated by a knowledge of its nature and tendency, aided by the pathological light of dissection.

“ In proof of the highly infectious nature of this fever, in the first instance, particularly in the hospital-ships, where so much
disease

disease was concentrated, it will be sufficient to mention, that nine out of eleven medical officers, attached to the sickly division, and to the hospitals, were attacked in the course of a few weeks. It proved fatal to one surgeon and an assistant; and two assistant-surgeons belonging to the Trusty died of the consequences. I was one of the last taken ill, after having been exposed for little more than ten days; which may be readily accounted for, when the powerful exciting causes inseparable from visiting a distant, detached, and sickly squadron, in the middle of winter, are taken into consideration.

“The contagion appears to have been particularly powerful in the Trusty, which ship had received the first, and consequently the worst cases; as not only the surgeon, and other medical officers, suffered severely, but twelve out of sixteen attendants, accustomed to the duty of waiting upon the sick, were seized with fever, four of whom died.

“Several attendants in the Argonaut, two assistants, and ultimately the surgeon, were also attacked; but he informs me, that, with one exception, all recovered, in whom he had the advantage of combating the disease at its commencement. It is needless here to dwell upon the value of various prophylactic measures under the heads of separation, ventilation, dryness, cleanliness, better clothing, &c. to which my solicitude was chiefly directed, or the difficulties that opposed their execution. I may, however, remark, that the benefit was in proportion as they were practised, and that the disease gradually became milder, to which the decreasing severity of the weather, as the spring advanced, materially contributed. Indeed, although malignant cases still continued from time to time to occur, in the more general course of symptoms, such as I am about to describe, there was little remarkable; and, without keeping in view the tendency to inflammation and disorganization which characterized the progress of the disease, there would have appeared little to warrant apprehension; but, as Dr. Haygarth justly remarks, after describing the symptoms of Typhus mitior, sometimes even this mild typhus is fatal.”

After what we have said of *typhus*, we shall not stop to inquire how a disease can be at once *mitior* and *lethalis*; but confine ourselves to a few remarks on the contagious property of the fever. The writer of the *preceding* article remarks, that, in the fever of which he had the charge, “not a single individual of those who had hourly intercourse with the patients, was ever seized with the disease. If even it had been otherwise,” he adds, “I am far from being disposed to grant that contagion was thereby proved, for where all are equally exposed to the peculiar causes, seizure must often be indiscriminate.” May not the same argument be urged against Dr. Dickson’s proof? But we have another, and, in our estimation, still greater objection to the indiscriminate use of

of the terms infection and contagion, contained in the extract from his paper. In a hospital ship, crowded with sick, during the winter season, must we not expect a foul air, and that such a cause, when generated, would be equally dangerous to all who approached within the sphere of its influence? We might also conclude, not only that the danger to the attendants should be less, but even that the subsequent fever would prove milder in proportion as ventilation was more attended to, and as the warmth of the season permitted the adoption of such means. But is this the case with the contagions strictly so called? Does ventilation lessen the contagious property of small-pox? or is the disease rendered milder in proportion as the effluvia inhaled are more diffused in common atmosphere? On the contrary, do we not find that the disease, taken in the casual way, at such a distance from the source as induces a dangerous security, is often as fatal as when received at the patient's bed-side. This is all we shall offer at present, because we have promised a distinct dissertation on the subject of contagion, after we have noticed several other performances on this important question.

We shall now, with much greater satisfaction, turn the attention of the reader to some valuable practical remarks of this ingenious writer. Though the necessity of bleeding and purging is now pretty universally admitted, in many fevers, from whatever cause, yet the manner of conducting it in the different stages is no where better explained than in the present work.

“ In the Trusty, the treatment deemed the most successful was, where the patient lost, within the first week or ten days, between sixty and eighty ounces of blood, by taking away from sixteen to twenty-four ounces at a time. When the fever was violent, a larger quantity was abstracted in a shorter period; but it was not often necessary to exceed thirty-six ounces in twenty-four hours, at two or three bleedings. After the tenth day it was not often considered proper to bleed, or only in smaller quantities, when indicated by symptoms of pressure upon any particular organ, or by the appearance or renewal of inflammation. When this remedy had been neglected at the beginning, or the patient was admitted on an uncertain day of the distemper, small bleedings of six or eight ounces, repeated according to the effect, were found safer than larger ones, which might have proved too debilitating, and were serviceable in preventing or moderating the consequences of inflammation and congestion. An able physician, Dr. Parry, in his *Elements of Pathology*, page 317, thinks ‘it is probable that subsultus tendinum, convulsive motions of the limbs, and hiccup, which often concur with delirium in various fevers, arise from long or violent irritation of the brain by sanguineous impulse.’ It is
certainly

certainly in favour of this idea that effusions of blood or serum were generally found in the brain of those who died with these symptoms about the 18th day; and, that, in some patients, where small bleedings, graduated by the pulse, were tried even as late as this, when delirium, subsultus, startings, and coma, indicated an oppressed or irritated state of the sensorium, these symptoms were diminished, the respiration became freer, and the intellect more distinct after its employment. Under this treatment, some apparently hopeless cases assuredly recovered; but it oftener failed. It is allowed that the presence of fever is most certainly detected by the state of the animal functions, and of the pulse; but to the latter there are many exceptions. I need not here adduce the many authorities that might be quoted in support of my own observation, to shew that the pulse, in many cases, has been found little affected in the worst fevers; that it is often little, if any, quicker than natural; and that it is sometimes preternaturally slow. But I believe it to be unnecessary to dwell upon its fallaciousness, or on the little information it often affords as to the propriety or quantity of blood to be taken, particularly where the head is much affected. In the early stage of disease it is often small, low, feeble, and irregular, previous to considerable reaction; but, when the accession of this state is characterized by increased heat, hard, full, and frequent pulse, throbbing of the carotids, and other symptoms of excessive determination, the indication is sufficiently manifest. This state of increased action, however, does not always follow, but the pulse continues low and contracted, or labouring and oppressed, until relieved by evacuations; when it rises, becomes fuller, and more equal;—an effect which, with correspondent improvement in the intellectual powers, I have often seen produced by purgatives, as well as by venesection, in tropical fevers.

“In this depressed state, the employment of a remedy, by no means passive, requires nice discrimination; for it is necessary to distinguish between that period of diminished energy preceding reaction, where it would prove injurious, and that in which, to use the language of Sydenham, ‘all the symptoms of weakness proceed from nature’s being in a manner oppressed, and overcome by the first attack of the disease, so as not to be able to raise regular symptoms adequate to the violence of the fever,’ until ‘it could disengage and shew itself’ by bleeding. Vol. II. p. 351.

“It is impossible, therefore, from the state of the circulation, to lay down any infallible criterion for the employment of blood-letting in fever. The safest is the hardness of the pulse, and a white tongue, as indicating inflammatory action; and, upon the whole, it was generally considered at least safe to bleed in the early stage, where the heat was increased, and the pulse above 100.

“The degree of resistance of the artery against the finger was considered a better guide than the size of the pulse; if it was firm and equal, bleeding was generally proper; if easily compressed, soft, or undulating, the contrary; if it felt tense, or corded, or
the

the stroke was described as sharp, harsh, jerking, or rebounding, it was considered indispensable; but, in using such terms, we must be aware how difficult it is to attach precise and determinate meanings to words, and that the same pulse will be described very differently by different reporters.

“In speaking of the fallacy of the pulse, I ought not to omit noticing the unequal distribution and power of the circulation which not unfrequently obtain in fever, as another source of error, if we judge of its force, in the vessels near the heart, by those of the extremities; for it may be strong and bounding in the central, yet weak and languid in the distant arteries. Some marked examples of this kind occurred from exposure to severe cold for several hours in boats after depletion; in consequence of which I grounded my application of the necessity of having a decked vessel to convey the sick to the hospital-ships. These patients, notwithstanding the application of warm blankets, &c. continued to complain of an extreme sense of chilliness, with coldness, and a sunk languid pulse in the extremities, while the face was hot and flushed, and the large vessels of the neck and head were greatly excited, indicating what Mr. Hunter calls action without power, and showing the danger, in such a case, of appreciating the state of the internal circulation by that of the radial artery. This unequal and partial distribution of heat, which seems to have engaged the attention of the ancients much more than the pulse, is very unfavourable in fever; and the same is the case whenever the actual condition of the patient and his feelings are much at variance; as, for example, when he complains of a much greater degree of either heat or cold than is indicated by the touch or by the thermometer.

“With respect to the comparative advantages of large or of frequently-repeated small bleedings, in early fever, both plans were employed here, and with various results; the latter may be often useful and safe, where the former would be inadmissible. But, at the commencement of the attack, or where some important viscus is threatened with inflammation, I must give a decided preference to the large and sudden abstraction of blood, while there is yet any chance of anticipating or removing congestion, or of cutting short the fever. The one will, of course, be preferable while we have these objects in view; the other may be useful in mitigating symptoms where the expectation of crushing the disease can be no longer indulged. It is also evident, that the occurrence or renewal of inflammation later in fever may justify a cautious and limited detraction of blood, when the loss of a larger quantity could not be borne.”

Some very useful remarks follow on the different appearance of the blood in different stages of the fever. In the beginning it often exhibited only a healthy appearance; in the more advanced stage, in the same subject, it exhibited every mark of inflammation. This difference has been accurately noticed by the great physiologist above referred to.

In the beginning of local inflammation, Mr. Hunter remarks, that blood will show no marks of increased action; in a few hours after, we shall find blood taken from the same vein buffy and cupped. This difference he imputes to the first blood that was drawn not having yet sympathized with the inflammatory action which has affected a solid part. In this manner we are often deceived. The parenchymatous part of the liver or spleen has very little sensibility; until, therefore, the whole system sympathizes, few indications of inflammation are discoverable; and, in a more advanced state, delirium will sometimes, to an unexperienced practitioner, confound all the symptoms. Hence the danger of the slightest delay in the earliest stage of fever.

The author's remarks on petechiæ are not less judicious. In the early stage, they mark often increased action, and are removed by free depletion. In the more advanced stage, they threaten more danger. We must, however, add, that their colour ought always to be attended to. When purple at any period, they must be considered dangerous, when florid, less so, or not at all, and the various shades between may be said to mark the degrees of danger.

With these well-founded remarks, many of which, though often occurring, are overlooked by more hasty and superficial observers; we were concerned to see that the author should not have courage to discard expressions which he must have lived long enough to adopt or not, as he pleases.

“In a *typhus* fever (says he) which afterwards prevailed among the Danish and American prisoners of war, and in which a glossy and turgid appearance of the eye was often the first indication of the disease, Dr. Dobson, of the Trusty, informed me, that he found venesection attended with the same success as in the Russians; but, while he is firmly of belief that no other plan was equally successful, he candidly acknowledges, that, in many cases, his expectations from the lancet were altogether disappointed; while, in others again, it seemed to save several who were studded with petechiæ,—a symptom that often manifested itself within thirty-six hours of the attack. After reverting to the failure of the lancet in cases where he had reason to expect success, he concludes,—‘But these failures by no means argue against the propriety of the practice, where no other measure was equally successful; inflammation was still present, and to its consequences death was, in every case, clearly proved by dissection.’”

Some ingenious enquiries follow on the connection between fever and inflammation, these we conceive more the offspring of modesty than decision. That fever is always attended, in some part, with increased action where it is a curable disease, can scarcely be doubted, or that in all such cases the principal danger is, lest that action should be carried too high in
some

some particular organ. On the other hand, fever, which is no more than universally altered action, may be attended with extreme debility, and the cause itself may be sufficient at once to render the whole system incapable of those functions by which life is supported. In these cases, we find a rapid extinction of life preceded by a change in the properties of blood, which renders it incapable of oxygenation.

What we have here suggested, must rather be considered as hints than systematic reasoning; and, if we are disposed to differ with Dr. Dickson, it is only because, with extensive practical knowledge, we wish him to assume a language suited to the clearness of his conceptions, the minute accuracy of his observations, and the general perspicuity of his reasoning.

Art. III.—*On the Malignant Fever which prevailed at Gibraltar in 1813, and its Treatment by Blood-letting*; by J. HUMPHREYS, Assistant-Surgeon, Royal Artillery.

The remarks on the treatment of this fever are less important in proportion as the subject is become better understood. We cannot, however, have too many well-grounded confirmations of a fact, the application of which has been so calamitously slow in the army practice. But the question of contagion renders the present paper peculiarly interesting.

“On the first appearance of the fever in 1813, (says Mr. Humphreys) in its aggravated type, a report was spread, and generally believed, that it was contagious; the garrison was immediately placed in a state of the strictest quarantine, and families became so exceedingly alarmed from a supposition of its being highly so, as to shut themselves up, refusing admittance even to their friends. I do not, however, concur in this opinion, and hope to show, in a satisfactory manner, by many instances which I shall adduce, that no contagion existed. The disease, at its commencement, attacked persons in different parts of the town at the same time, who were very remotely situated from each other, and those who shut themselves up, and considered themselves secure, being perfectly insulated, were attacked as readily as those who mixed indiscriminately with the people as usual; shewing clearly that the disease was produced by general local causes, acting on the whole population of the place, and not imported, of which no satisfactory assignable source has ever been traced; nor do I think it probable that contagion is of that peculiar nature, as to show itself in different years precisely at the same season, having lain dormant and inert nine months of the year, and then burst forth to commence its devastating influence.

“The local causes which appear to me to have given rise to this so much dreaded and formidable disease, are principally the following:—The excessively crowded population of the place; the houses

and sheds being literally huddled together in so limited a spot, without arrangement, and of the worst construction; the doors and windows being generally on the same side of the apartments, so as to preclude a free access of air and ventilation; and among the lower orders of Portuguese, Spaniards, and Jews, these dwellings are usually shut up during the whole of the day, from sunrise to sunset; consequently, on their return, they must breathe a very impure air, almost wholly deprived of its oxygen; the immense collection of animal and vegetable matters, arising from so great a population, during the dry summer months, remaining stagnant from May till the end of August, and which become roused into action at the end of the autumnal season by the partial rains, when the quantity of water is not sufficient to propel them through their respective drains, which are too narrow for their evacuation, being frequently choked and bursting. At this season, also, the heavy night-fogs, succeeded by a parching sun, occasion exhalations extremely noxious and unwholesome. To these may be added the peculiar situation of the town, which is on the western foot of a steep rock, about 1400 feet in height, running nearly north and south, the air remaining nearly stagnant during the prevalence of the easterly winds, which continue with but little variation the whole summer.

“ Having enumerated such of the local causes as I conceive to be the leading and most prominent, in aggravating the bilious remittent fever, which we here witnessed in the years 1813 and 1814, I shall now proceed to state some striking examples.

“ A lady, an officer's wife, residing in the Moorish Castle, which is considerably above and out of the town, never left the castle, and was so alarmed that she would not allow any individual to approach her; and, after the fever had existed five weeks or more, she fell ill and died of it; her husband, who was constantly at her bed side during her illness, escaped the disease.

“ Similar precaution had been taken by the Ordnance store-keeper, Robert Pringle, Esq. who had adopted the most rigid quarantine for more than three weeks, yet he did not escape. As his was the first case where I ventured to deviate from the common mode of treating the disease, and as it terminated successfully, contrary to the opinions of the medical officers, and others who knew him, I take the liberty of giving an outline of it. He was seized suddenly with the common symptoms, as cold shiverings, violent pain of the head, loins, and calves of the legs; great pain and redness of the eyes, dimness of sight, vomiting, hot dry skin, coated tongue, and quick strong pulse. I took away immediately forty ounces of blood. After the loss of twenty ounces, he expressed great relief, and begged of me to continue it, which I did till the above quantity was abstracted. His head became instantly relieved; he could see distinctly, and his pulse, from 125, was reduced to 90. I ordered him a strong purgative of calomel and jalap, and cold water, with vinegar, to be applied to his forehead. Four hours afterwards I visited him again. Found that his head

was entirely relieved, but some pains of the loins and calves of the legs remaining. He had had some sleep, his skin was moist, his bowels were moved, and his pulse nearly natural. He was directed to take three grains of calomel every three or four hours, and on the fifth day he was perfectly recovered. Mrs. Pringle, who was constantly with him, escaped, as did the children."

Many similar instances are produced.

Art. IV.—*Proofs of the Bulam Fever attacking the Human Frame only once*; by W. Pym, M. D. Inspector of Hospitals.

This is a very important paper. The facts brought forward in proof of the premises are numerous, and, we cannot doubt, not less correct. We shall offer the two concluding paragraphs, which contain the author's claim, not to the discovery, but, which is still more important, to its practical use.

"I am truly surprised that its peculiarity of attacking the human frame but once, has not been sooner known; and now, that it is mentioned, that it has not excited greater attention. Lining mentions it particularly, in the Edinburgh Medical Essays, fifty years ago. In Sauvages' last editions, about 1768, it is positively mentioned. The English have long known the fact under the name of *seasoning*, and the French of *tribut, acclimaté, or une idiosyncrasie réfractaire à la contagion*. Monsieur Berthe, in mentioning the disease at Cadiz, says, "Le petit nombre de ces individus ainsi privilégiés a été observé parmi ceux qui avaient habité les Antilles." The emigrants from St. Domingo were proof against the contagion of Philadelphia in 1793-4. But vaccination was long known in Gloucestershire to the dairy-men before Dr. Jenner's discovery; and, with respect to my discovery in the yellow-fever, I cannot give it up to the Spanish practitioners. I made the discovery that the West Indians were proof against it on the 20th October 1804, or rather the 19th, for that was the day that I requested Sir Thomas Trigge (governor) to order the men who had been in the West Indies to be paraded.

"The first Spanish physician that mentioned it was Arejula, and he did not publish until 1806. Sir J. Fellowes gives the credit of it to the Spanish physicians generally. No individual one has claimed it. It certainly was not known among them in 1803; nor do I believe it was ascertained in 1804, until after the time that I discovered the non-liability of the West Indians, when I requested my friends in Gibraltar to write to Malaga and Cadiz, where inquiry was made, and the fact proved."

Rudiments of the Anatomy and Physiology of the Human Body, consisting of Tables, &c. compiled for Students of those Sciences, beginning their Researches. By T. J. ARMIGER, Member of the Royal College of Surgeons, Surgeon Extraordinary to the Duke of Kent, &c. &c. late Demonstrator of Anatomy at the London Hospital. Cox and Son, 1816; pp. 52.

THIS is a most valuable little compilation for either the *emeritus* or the student. For the former, if not constantly engaged in operating or dissecting, nothing can be more convenient than so general and so convenient a reference to parts by their name. For the latter, the advantages are still greater. Before lecture, he may be prepared for the subject, and after lecture, by reviewing, he may avoid the custom of making notes, which always endangers the attention, but particularly when there is a demonstration. All this is well expressed by the author.

“ These rudiments of the anatomy and physiology of the human body, are intended for students of medicine beginning their inquiries in those sciences. They have been compiled to supply a deficiency of our elementary books, which do not proceed progressively from explained to unexplained truths. ‘ The student will ever make the most progress, who, rising from less to greater points, and from the more easy to the more difficult, moves on in regular and happy gradation.’ It becomes me to acknowledge that the materials are collected chiefly from approved authors, and to state that my readers are to expect no other novelty than the method of arrangement.”

A short introductory chapter follows, containing all that is necessary previously to entering on the subject. Next follows a general division of the body—its component parts—character of the various textures—of its functions—of the organs by which such functions are accomplished. These are reduced into a compressed and perspicuous table, succeeded by another on the distribution of these organs, according to their various situations in the body.

A description of the bones follows, which is preceded by a very proper caution, lest the student should confound the artificial with the natural skeleton. This part of the work concludes with an account of the connection of the bones, in which the author has, of course, introduced all the technical terms by which the joints are distinguished, as well as their component parts, and fluid contents.

A fifth table contains the muscles of the skeleton. This method of arrangement is adopted to avoid the use of such terms as, origin and insertion. The tables contain, on one side,

side, the name of the bone in which the muscle is usually said to have its origin; on the other, its insertion; and in the centre, the name of the muscle itself. This is not only the most simple arrangement, but the most perspicuous, and, beyond comparison, the most useful, as it introduces the reader at once to the situation and uses of each muscle.—Tables of the arteries, and of the veins, are not less judiciously arranged. A view of the absorbent system follows; and the whole concludes with a similarly constructed table of the nerves.

Of the merits of this work, the most striking are brevity, perspicuity, and judicious arrangement, which are, indeed, all that the author promised. We think no student should engage in a course of lectures, or dissections, without supplying himself with it; and doubt not that the encouragement with which it is received will induce the author to continue his labours.

MEDICAL AND PHILOSOPHICAL INTELLIGENCE.

ROYAL SOCIETY of EDINBURGH.—An account of the sleeping woman of Dunninald, near Montrose, was read by the Rev. JAMES BREWSTER. Her first sleeping fit lasted from the 27th to the 30th of June, 1815. Next morning she again fell into a sleep which lasted seven days—without motion, food, or evacuation. At the end of this time, by moving her hand and pointing to her mouth, it was understood she wanted food, which was given to her; but she remained in her lethargic state till the 8th of August,—six weeks in all, without appearing to be awake, except on the 30th of June. Her pulse for the first two weeks was about 50; the third week 60; and previous to recovery it was at 70 to 72. Though extremely reduced, she gained strength so rapidly that before the end of August she worked regularly at the harvest. This case is well authenticated.

The Medical Benevolent Society.—The directors of this truly liberal and philanthropic institution, which embraces the interests of every medical practitioner resident in the united kingdom, who is a member of it, having, with the best legal assistance, finally arranged the laws and regulations by which it is to be governed; the society is, therefore, permanently established. Many liberal donations and numerous subscriptions have been received, forming in the aggregate a considerable sum of money, which has been invested in the public funds, conformably with the purposes expressed in the prospectus.

The particulars of the society may be known by application to Mr. BEST, the Secretary, No. 15, Tavistock-street, Covent-garden.

In a former number we made mention of the unhappy differences concerning the medical officers at Bethlem. All the officers are annually

annually elected as at the other royal hospitals; but, by custom, the re-election has been hitherto a mere matter of form. On the late occasion, the election of the physician and apothecary was suspended for a month, whilst the other officers, including the surgeon, were all continued. The general opinion of all impartial thinkers was, that this step was only an easy way of permitting the two former to resign. But these gentlemen either thought differently, or conceived that they had interest enough to maintain their places. On a show of hands, they were most pointedly, to use no severer term, disappointed. The apothecary, whose abilities are so well known by his publication was in a marked minority.

After this, the general meeting made a very prudent determination to have two physicians. Had they determined on three, we conceive it would not have been too many: two, however, is an important improvement in their establishment. The candidates for the offices are more numerous than we could have expected; we see, among the number, the son of the *ci-divant* physician. Should he succeed, it will make, we believe, the fourth in regular succession of the same family, three generations at least having already filled the office; the last held it for thirty-three years.

We expect much from the late attention paid to madness by the public; for, whatever may have been the researches of the faculty concerning that unhappy disease, Mr. Haslam's performance is the only one which offers any insight into the mode of treatment. The metaphysical reveries of Batty are not worth notice, and the answer by Monro is more a specimen of wit (said to be Smollet's), than calculated to afford information. The French writers have done something, but at present the pathology of madness is more in its infancy than any other disease. We forgot to mention Dr. Crichton's work, and probably most of our readers have forgotten that he ever wrote on *mental alienation*. In the want of more materials, it is, however, well worth consulting.

We trust the example of having two physicians will be followed by the governors of St. Luke's Hospital.

Mr. BROOKE, of Keppel-street, has introduced a very valuable improvement in the Blow-pipe. When this is supplied by the mouth, the jet is always uncertain, and must be interrupted by the necessity the operator feels for respiration, besides which, he can only use one kind of air, the properties of which are somewhat uncertain, as there is always a mixture of pure atmospheric air with that which has been respired, and is forced from the lungs. The following account is extracted from Thomson's *Annals of Philosophy*.

“The occasion of my having this blow-pipe made, was to relieve the great inconvenience I felt in using the common blow-pipe with the mouth. The first idea that suggested itself to me was to produce the jet of air from a sort of artificial mouth, or *moveable receiver*, of rather large dimensions, the capacity of which should be capable of gradual reduction by means of a spring; but it im-

mediately occurred to me that the elasticity of the air itself, if forced into a *fixed* receiver, would be more uniform in its action than any spring, and might be regulated so as to produce a continued and more uniform jet. I accordingly applied to Mr. Newman, in Lisle-street, to make one upon this principle, to consist of a copper or iron vessel, into which the air is forced by a small condensing syringe, and from which it is suffered to escape through a tube of very small aperture, regulated by a stop-cock; and I have found it capable of affording a very intense and regular degree of heat. The form given in the drawing has been adopted by Mr. Newman for the convenience of packing into a small case; and he has also added to the syringe a screw, by means of which the receiver may be filled with oxygen or any other gas, which renders it more extensive in its application to chemical purposes, and probably so as to supersede the use of the common gazometer."

We are glad to find the following history has at length found its way, as an authentic record, in the Transactions of the Linæan Society. The fact has hitherto only been noticed in fugitive periodical papers of the day.

"A hog was buried in its sty by a fall of part of the chalk cliff under Dover Castle, December 14, 1810. On the 23d of May, or 160 days after the accident, Mr. Mantell was told that some of the workmen employed in removing the fallen chalk had heard the whining of a pig. He encouraged them, in consequence, to clear away the chalk from the sty under the direction of the owner, Mr. Poole, who was present. He was soon afterwards surprised to see the pig alive extricated from its confinement. Its figure was extremely emaciated, having scarcely any muscles discernible; and its bristles were erect, though not stiff, but soft, clean, and white. The animal was lively, walked well, and took food eagerly. At the time of the accident it was fat, and supposed to have weighed about 160lbs.; but it now weighed only 40lbs. Mr. Mantell was assured that at the time of the fall there was neither food nor water in the sty, which is a cave about six feet square, dug in the rock, and boarded in the front; and the whole was covered about 30 feet deep in the fallen chalk. The door and other wood in front of the sty had been much nibbled, and the sides of the cave were very smooth, having apparently been constantly licked for obtaining the moisture exuding through the rock. There was no doubt that some of the loose chalk in front had been eaten; and from the appearance of the excrement, it may be conjectured that it had passed more than once through the intestines."

The above account is given by Thomas Mantell, Esq. F.L.S. Mayor of Dover, and Agent of the Packets at that place. An objection has been started that the creature was deprived of air. This, to us, appears more captious than philosophical. It is well known that in high northern latitudes bears are torpid during the winter; that animals, during that state, either cease to breathe, or respire so rarely that a small quantity of air is sufficient. This is particularly

particularly remarkable in gregarious insects, who are clustered in such a manner as to exclude all air, and who emit, at those times, an air which will not support flame nor respiration. It will be found, on examining our Meteorological Register, that, at the period when the hog was first inclosed, the atmospheric temperature was higher than the freezing point, which may account for the sensation of hunger continuing till the air was so loaded with azote as to render the creature torpid, and induce its native habit of hibernating.

By Humboldt's account, published in the Prolegomena to his *Nova Genera et Species Plantarum*, the ancient Greek, Roman, and Arabian writers were not sufficiently acquainted with more than 1,400 plants, so as to describe and name them. At this time he enumerates 38,000 in the various quarters of the globe, viz.

In Europe	7,000
Temperate regions of Asia	1,500
Asia, within the tropics and islands	4,500
Africa	3,000
Both temperate regions of America	4,000
America, between the tropics	13,000
New Holland, and islands in the Pacific ..	5,000

38,000

Syphilis.—It has been questioned by many whether it be possible to affect the system of a nursing child by quicksilver, through the medium of the mother. The following case proves the affirmative.

In the year 1808 a woman, who had an infant about six weeks or two months old at the breast, received the venereal disease from her husband. Being ignorant of the nature of her complaint, and trusting to common applications for a cure, it was allowed to proceed for some months before she applied to the writer of this article. The disease was found by him to exist locally to a great extent, accompanied with ulcers at the corners of the mouth, and on the nipples and breast. The matter of these ulcers coming into contact with the child had produced the same disease in and about its mouth, neck, and breast, to a great degree. In fact, the parent and offspring together presented a spectacle equally pitiable and disgusting. The child was ordered to be kept at the breast, and the mother was treated in the usual way by frictions, pills of sub-muriate of quicksilver, &c. A moderate salivation ensued, during which the face of the infant became swelled; a profuse discharge of saliva followed; the sores gradually healed; and they were both cured at the same time.—*New-Eng. Journ.*

The above case is interesting, inasmuch as it shows the progress of a morbid poison in a mother and child. The ulceration, to a great degree, is not like the secondary symptoms of syphilis, but like *sievens*. We hope, from some succeeding numbers of that truly valuable journal, to learn a more minute description of the primary and secondary form of this disease.

Dr. BAYLE,

Dr. BAYLE, Physician to the King of France, and of the Hospital of Charity, has terminated a career, at the age of forty-two, which commenced in the most brilliant manner. Deprived of the external advantages for getting forward in the world, M. Bayle had no other resource than his talents. He was remarked, in his youth, as one of the best pupils of the School of Medicine in Paris; and he soon afterwards obtained the confidence of the public as rapidly as he had merited the esteem of his masters and fellow-students. Born in the Alps, M. Bayle preserved the habits of his early years: his exterior was far from prepossessing, his address displayed embarrassment and timidity; but a few moments of conversation dissipated these clouds, and displayed a mind comprehensive and solid, a refined understanding, a rare perspicuity, and a deep and various fund of scientific knowledge. The physician, the man of letters, the anatomist, and the natural philosopher, would have fancied that he had devoted himself exclusively to each of these branches of human knowledge.

M. Bayle had given himself up, for the last fifteen years, to the study of pathological anatomy. He published, a few years ago, *Researches on Pulmonary Phthisis*, founded on the dissection of upwards of 900 consumptive subjects. During his long illness, under which he fell, he put the finishing hand to a *Treatise on Cancer*; a work entirely new, and distinguishing and carefully classing the various affections generally confounded under the name of Cancer. He wrote several articles in "the Dictionary of the Medical Sciences," and in various medical journals. He has left several scientific memoirs, some of which belong to the Society of the Faculty of Medicine, of which he was a member; and a vast number of notes, the result of his immense anatomical and medical researches.

M. Bayle united to great talents all the virtues which constitute the man of worth. Too skilful not to know long in advance the mortality of his disorder, he observed the progress, and foresaw the end with as much calmness as if it had been a patient. A few days before his death, he calculated even his last hour with a serenity of mind which that high sense of religion he had always displayed alone could give. The poor will long regret in him the physician who, in giving them advice, always enabled them to profit by it; his brethren, the modest man, who, even while young, was one of the luminaries of the French school; and his friends, a friend of tried probity, profound wisdom, and a sweetness and equality of temper, which was proof against all contingent events.

The following letter is transcribed from the last number of the *Philosophical Magazine*.

SIR,—In addition to what I have already communicated to you, in regard to my methods of preparing emetic tartar, I beg to submit to your readers a copy of a letter which I sent, above two years ago, to the president of the Royal College of Physicians, London.

This I hope will serve as a protection against the officious and, I may say, illiberal, intrusion of one, who seems still determined to injure my professional reputation and, consequently, the welfare of my family.

I have said methods, because, by more ways than one, I have effected the decomposition, and have proved that an oxide of antimony, fit for the purpose, can be obtained directly from the common black sulphuret either by means of nitric acid alone, properly diluted with water, or the ingredients themselves by which this acid is prepared, together with the necessary quantity of water.

The process which I sent to you, and which you have already admitted into the Philosophical Magazine, has been supported by the most ample and favourable testimonies, both by manufacturers and others who are competent to judge of its merits; I have therefore no inducement at present to recommend any change in that prescription.

I take this occasion to declare that, excepting the preparation of the medicine in question, the tartarized antimony, I had less to do with the changes that have been made either in the former volume, or in the *editio nova* of the Pharmacopœia than may be supposed; I had no direct communication with the committee; nor do I know, even at this moment, how and of whom this committee was composed, whether it was open to all the members of the college, or secret and select; consequently I had no opportunity of preventing the material error (*tum cola*) which had unfortunately slipped into the formula for *antimonium tartarizatum*.

The letter, of which I shall subjoin a copy, was never meant to be kept as a secret, further than to be presented first to the consideration of the committee, which, as I understood, had been appointed to reform the Pharmacopœia of the London College. This letter, if admitted into your pages, will serve as a registry, notwithstanding all that has been asserted by one who has written so much and done so little, that the process which the college has now abandoned might have been perfectly modified; that the nitric acid was not in such great excess had a sufficient quantity of water been employed, and that the muriatic acid is not of so much consequence in the formation of protoxide of antimony, since the whole of the eleven fluid ounces there prescribed might have been omitted.

I remain, sir,

Long-Acre;
April 17, 1816.

Your obedient servant,

Jos. HUME.

To Dr. Latham, &c. &c. &c.

SIR,—A very simple and, I believe, effectual method of preparing tartarized antimony occurred to me yesterday, which I am anxious to present to you, lest I should be anticipated unfairly by any other experimentalist.

I shall not at present take up more of your time than to state the following sketch of the process.

The common black sulphuret of antimony is boiled with nitrous acid largely diluted with water. This produces an oxide of antimony

mony which, after being properly washed, is to be boiled with super-tartrate of potass and distilled water. The operation is then to be finished in the usual manner by evaporation and crystallization.

Long-Acre; I have the honor to be, sir, &c.
Jan. 21, 1814. JOS. HUME.

From our correspondent in Germany, we have received two cases of Hydrophobia cured by excessive bleeding, mercury, and other remedies; they will appear in our next.

Dr. JOHN REID is preparing a volume of Essays on Nervous and Hypochondriacal Diseases, and other Subjects.

Dr. ALEXANDER MARCET will speedily publish an Essay on the Chemical History and Medical Treatment of Urinary Calculi, with plates.

Mr. HOWSHIP has nearly ready for publication some Practical Observations on the Diseases of the Urinary Organs, illustrated by Cases and Engravings.

Dr. ADAM DODS has nearly ready for publication, the Physician's Practical Companion, as a Physico-Chirurgical Synopsis of Modern Medicine, arranged in alphabetical dissertations. Also, an Explanation of the Principal Technical Terms adopted by Ancient and Modern Writers.

Speedily will be published, some Practical Remarks in Surgery, illustrated by Cases. By A. COPLAND HUTCHISON, M. D. late Surgeon to the Royal Naval Hospital at Deal.

Lectures on Anatomy.—MR. CARPUE will commence his Anatomical Lectures at his Theatre, No. 50, Dean-street, Soho, on Monday, the 10th of June, 1816.

The Structure of the Human Body will be explained, as also its Physiology.

The Operation of Surgery will be shewn on the Dead Body.

Every day some part of the Human Body is demonstrated to the Pupils, who are required to demonstrate in their turn.—This plan obliges Mr. C. to limit the number of his Pupils.

Myology is not taught till the Pupils are perfectly instructed in Osteology, &c.

A general examination takes place every tenth day; and, if the Pupils do not perfectly recollect the parts that have been lectured on, they are again demonstrated.

The Dissecting-Room will be open from seven o'clock in the morning till five in the evening. The pupils are here taught the Method of operating, as also the Art of Injecting and making Preparations.

Dr. SQUIRE and Dr. DAVIS will, about the middle of this month, begin a Course of Lectures on the Theory and Practice of Midwifery, and the Diseases of Women and Children.

*Mr. Salisbury's Botanical Excursions and Calendar of Flora,
for May 1816.*

Friday, May 3d, our excursion was to Battersea Fields, Wandsworth Common, and Tooting. The following few plants are all that were in bloom.

Cerastium vulgatum.
Juncus pilosus.
Montia fontana.
Saxifraga granulata.
Salix fragilis.
Ranunculus auricomus.
Salix caprea.
Fragaria sterilis.
Viola canina.

Viola odorata.
Primula vulgaris.
Viola tricolor.
Veronica serpyllifolia.
Saxifraga tridactylites.
Arabis thaliana.
Prunus spinosa.
Poa annua.
Lithospermum arvense.

Friday the 9th, a very wet day, and the excursion put off till Tuesday the 14th, when we visited Hampstead Heath, Cain Wood, and Highgate Archway.

Anemone nemorosa.
Pedicularis sylvestris.
Salix fusca.
Betula alba.
Prunus Cerasus.
Vaccinium Myrtillus.
Primula vulgaris.
——— *officinalis.*
Ranunculus bulbosus.
——— *acris.*
——— *hirsutus.*
Ajuga reptans.
Orobus tuberosus.
Plantago lanceolata.
Stellaria holostea.
——— *graminea.*
Lychnis dioica.
Acer. Pseudo-platanus.

Erysimum Alliaria—just expanding the bloom.

——— *Barbaria*—ditto.

Veronica serpyllifolia.

——— *arvensis.*

Rumex Acetosella.

Geranium molle.

Scirpus sylvaticus.

Juncus sylvaticus.

Euphorbia sylvatica.

Scilla nutans.

Oxalis Acetosella.

Anthoxanthum odoratum.— This grass was not generally in bloom, the few specimens we found were growing on the warm bank at Highgate Archway.

The seeds of *Tussilago farfara* were this day quite perfect and flying about. The foliage of the Elms and some other trees not so forward as at Chelsea. Some of the Horse-chesnuts but just exfoliating.

May 17th. Charlton and Woolwich Sand-pits, and the Meadows opposite to Blackwall.

Myosotis scorpioides.
Draba muralis.
Medicago falcata.
Veronica Chamædrys.
Valeriana locusta.
Melica uniflora.
Orchis mascula.
Mercurialis perennis.
Fragaria vesca.
Pyrus Malus.
Arum maculatum.
Lycopsis arvensis.
Brassica Napus.

Brassica Rapa
Adoxa moschatellina.
Acer campestre.
Millium effusum.
Spartium scoparium.
Galeobdolon luteum.
Allium ursinum.
Cochlearia officinalis.
Geranium Robertianum.
Vicia Sepium.
Erodium cicutarium.
Alopecurus pratensis— only a few spikes to be seen in bloom.

Friday

Friday the 24th, Richmond Park, Combe Wood, and Wimbledon Common.

Carex præcox.

— panicea.

Iberis nudicaulis.

Ornithopus perpusillus.

Fagus sylvatica.

Ulmus campestris.

Poa nemoralis.

Ilex aquifolium.

Salix cineria.

Chærophyllum sylvestre.

Turritis glabra.

Carex riparia.

Hottonia palustris.

Genista anglica.

Sinapis arvensis.

General remarks.—The grass in the meadows generally very luxuriant, and the fairest prospect of a heavy crop, though extremely late. The Horse-chesnuts in some places in full bloom, in others not a petal open. The foliage of the Hazel, the Elm, and the Hornbeam, nearly expanded to the full size. The Oaks in Richmond Park,* the foliage of which was so eaten up by the Cockchafer last summer, have scarcely the buds broken; other Oak-trees in beautiful young leaf; but the stools of Oak in the low ground of Combe Wood, have not a single bud open, and are as perfectly naked as they were at Christmas. The Hawthorn is not in bloom that I have yet seen. The early variety of this shrub, called the Glastonbury-thorn, opened its blossoms on the 15th instant, and is now in the gardens in full bloom. Rye and winter tares—a large crop, and some are now cut for the first time. Wheat is in a fine healthy state, no appearance of disease, and in general a good regular crop. Clover fine, but very late. The spring-sown grain looks also very fine. The fruit on standards—Apples, Pears, Plums, and Cherries, are set in abundance, and are, in general, very promising, and at this late period they appear to have no other enemies than the insects. The *Aphis lanata* (*American blight*) on the Apple-trees, and the larva of the small red Beetle, mentioned at p. 90 of the work above quoted, are every day rapidly increasing.

The following days are intended for the excursions, and places of meeting in June:—

Friday the 7th, Battersea Fields and Wandsworth Common, Banks of the Thames, &c.

Friday the 14th, Regent's Park, Highgate Archway, and Hampstead Heath.

Friday the 21st, Woolwich Warren, and Chalk and Sand Pits at Charlton, in Kent.

Friday the 28th, Battersea Fields.†

At the desire of some of my students, I shall in future read a Lecture on Botany every Monday, at the Botanic Garden, at three o'clock. As some of your numerous readers may not understand my mode of teaching this science, and may wish to profit thereby, any persons of respectability will be admitted once gratuitously either to the lectures or excursions.

* Vide Observations on Orchards and on Insects that infest Fruit-trees, by W. Salisbury, lately published at the Botanic Garden, p. 73.

† Should it be wet weather on either of the above days, the excursion will be deferred till the following Tuesday, at the same place and time.

REPORT OF DISEASES.

THOUGH inflammatory complaints still continue, they do not increase, either in number or violence. We have also met with several of those chronic diseases usually termed nervous. These are not among the number of such as have been copiously evacuated on account of previous inflammations; but, in some instances, we fear the effect of that despondency which the dull state of the metropolis induces among all classes—the artisans for want of employment, and the higher class of traders for want of remittances to answer their large consignments. Probably the fairer prospects which the improved condition of the funds, and the general tranquil state of Europe afford, may, with the cause, remove the effect. Inflammation, however, still exists sporadically in its most formidable shape, and requires the same energetic practice to arrest its progress. We have met with dysentery, which has pervaded a whole family, and proved fatal to a child two years old. This has been imputed to the emptying an old neglected sewer, and we are the more ready to admit such a cause, as the disease rarely occurs at this season, and as we have seen it in only this family. The symptoms were extremely violent in the fatal case, and not seen by the Reporter till ulceration had probably taken place over a considerable part of the mucous membrane of the intestines. The only other severe case was met with the lancet as soon as the *tormina* were considerable, and the patient is doing well.

The exanthemata continue general and severe. Small-pox, from the unaccountable supineness of the lower class of society, is gaining ground, though inoculation has almost ceased.

Colchicum has now, we conceive, established its reputation for the cure of gout. There are three preparations, all of which are kept secret, though the contents of each are pretty well known. The *eau medicinale* is supposed to be a strong infusion in some French wine. Wilson's (whose book we announced a few numbers ago, and which disappointed us in professing to keep the preparation a secret) is generally believed to be an infusion in cherry wine; and the last, invented for himself by a Bank clerk whose name we do not recollect, is said to be a strong watery decoction, with the addition of rum. Wilson's is most in use among the fashionable, who, we need not say, are the principal victims to the disease. The great expence of the *eau medicinale* has naturally suggested a most diligent attempt at its analysis; but its composition, like all other vegetable combinations, can only be guessed at by synthesis, and by the effects produced on the human constitution. Every thing of this kind confirms Mr. Want's opinion concerning colchicum, and lessens Mr. Moore's concerning helebore and opium.

METEOROLOGICAL REGISTER.

From April the 26th, to May the 25th, 1816.

Kept by C. BLUNT, Philosophical Instrument Maker, No. 38, Tavistock-Street, Covent-Garden.

Moon.	Day.	Wind.	Barometrical Pressure.			Temperature.			
			Max.	Min.	Mean.	Max.	Min.	Mean.	
	26	SE	30.13	30.12	30.125	69	49	59.	Fair
☉	27	SE	30.10	30.	30.05	67	48	57.5	Fair
	28	SE	30.	30.	30.	64	37	50.5	Rain
	29	SE	30.	29.97	29.985	66	39	52.5	Rain
	30	SE	29.84	29.58	29.71	65	38	51.5	Rain
	1	SE	29.74	29.68	29.71	64	38	51.	Rain
	2	SE	29.89	29.82	29.855	63	36	49.5	Rain
	3	SE	30.	29.96	29.98	61	39	50.	Rain
☾	4	SW	30.11	30.	30.055	62	40	51.	Rain
	5	W	30.	29.96	29.98	61	40	50.5	Rain
	6	W	29.96	29.93	29.945	60	38	48.	Rain
	7	W	29.99	29.82	29.905	60	37	48.5	Rain
	8	W	29.74	29.68	29.71	59	36	47.5	Rain
	9	W	29.82	29.80	29.81	59	38	48.5	Rain
	10	W	29.50	29.42	29.46	57	35	46.	Rain
☉	11	NE	29.42	29.31	29.865	56	34	45.	Rain
	12	NE	29.58	29.42	29.50	57	35	46.	Rain
	13	NW	29.78	29.62	29.7	59	36	47.5	Rain
	14	E	29.90	29.89	29.895	58	37	47.5	Rain
	15	SE	29.90	29.89	29.895	56	41	48.5	Fair
	16	SE	29.93	29.83	29.88	66	40	53.	Fair
	17	E	29.82	29.79	29.805	64	39	51.5	Fair
	18	NE	29.88	29.85	29.865	60	38	49.	Fair
☾	19	E	29.88	29.85	29.865	60	40	50.	Fair
	20	SE	29.90	29.90	29.9	59	38	48.5	Fair
	21	SE	29.97	29.97	29.97	58	34	46.	Fair
	22	E	29.93	29.97	29.975	59	36	47.5	Fair
	23	SE	29.93	29.98	29.98	60	38	49.	Rain
	24	SW	29.96	29.92	29.44	63	38	50.5	Rain
	25	SW	29.99	29.92	29.44	61	40	50.5	Rain

RESULTS.

Mean barometrical pressure of the month	29.8592	Mean temperature of the month	24.7452 deg.
Maximum 30.13,	wind at SE	Maximum 69,	wind at SE
Minimum 29.31,	———— NE	Minimum 34,	———— NE

Scale exhibiting the prevailing Winds during the Month.

N NE E SE S SW W NW
0 3 4 13 0 3 6 1

	Mean barometrical pressure.	Mean temperature.
From the new moon on the 27th April, } to the first quarter, on the 4th May }	29.398	51.785
———— the first quarter on the 4th, to } the full moon on the 11th }	29.837	48.571
———— the full moon on the 11th, to } last quarter on the 19th }	29.8	48.5

MONTHLY

MONTHLY CATALOGUE OF MEDICAL BOOKS.

THE Modern Practice of Physic, exhibiting the Characters, Causes, Symptoms, Prognostics, Morbid Appearances, and improved Method of Treating the Diseases of all Climates. By Robert Thomas, M.D. 8vo. Fifth Edition, revised and enlarged.

A Treatise on the External Chemical and Physical Characters of Minerals. By Robert Jameson, Professor of Natural History, &c. &c. &c. 8vo. Second Edition.

Pharmacopœiarum Collegiarum Regalium, Londini, Edinburgi, et Eblanæ, Conspectus Medicus; à Edwardo Goodman Clarke, M.D. Col. Reg. Med. Lon. Exercitusq. Medico. etc. 18mo. Edit. alteria.

A System of Physiological Botany. By the Rev. P. Kieth, F.L.S. Illustrated by nine Engravings; in 2 vols. 8vo.

Observations and Inquiries into the Nature and Treatment of the Yellow, or Bulam Fever, in Jamaica and at Cadiz; particularly in what regards its Primary Cause and assigned Contagious Powers: illustrated by Cases and Dissections, with a View to demonstrate that it appears divested of those Qualities assigned to it by Mr. Pym, Sir J. Fellowes, and others. In a Series of Memoirs. By Edward Doughty, Member of the Royal College of Surgeons of London, and Surgeon to the Forces. 1 vol. 8vo.

NOTICES TO CORRESPONDENTS.

We cannot admit the Letter from our ingenious Norfolk Correspondent, unless he will permit us to shorten it in some parts.

We cannot admit an Anonymous Paper on the practice of a Gentleman who always gives us his name. Still less can we undertake to circulate reports, which are always current enough without our adding to their publicity. The story of the Master of an Inn may do very well for a sapient shrug among the inhabitants of a country town, but to that it should be confined.

Communications have been received from JOHN HOARE, Esq., MEDICUS, ONE OF THE FEATERNITY, W. S., &c. &c.

Our Correspondents will please to be particular in the Address of their Communications, which should be thus, "To the EDITORS of the LONDON MEDICAL AND PHYSICAL JOURNAL, at Mr. SOUTER'S, No. 1, PATERNOSTER-ROW; or at Mr. ADLARD'S, 23, Bartholomew-Close."

ERRATA.

Page 400, line 11 from the bottom, for *author* read *patient*.
 ——— 9 ———, for *testaceæ* read *testacea*.
 — 404, — 6 ———, for *thee* *vacuations* read *the* *evacuations*.
 — 413, — 16 ———, for *ingenious* read *ingenuous*.
 — 424, — 12 ———, for *influence* read *atmosphere*.

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