MEDICAL
COMMENTARIES,
FOR THE YEARS 1783-84.

EXHIBITING
A CONCISE VIEW OF THE LATEST AND MOST
IMPORTANT DISCOVERIES IN MEDICINE
AND MEDICAL PHILOSOPHY.

COLLECTED AND PUBLISHED
BY
ANDREW DUNCAN, M.D. F.R. & A.S. Ed.
PHYSICIAN TO HIS ROYAL HIGHNESS THE PRINCE OF WALES
FOR SCOTLAND,
FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS, EDINBURGH,
AND MEMBER OF THE ROYAL SOCIETIES OF MEDICINE
OF PARIS, COPENHAGEN, EDINBURGH, &c.

Neglecta reducit, sparfa colligit, utilia sequit, necessaria
ostendit, sic utile.

BAGLIVIIUS:

VOLUME NINTH.

LONDON:
PRINTED FOR J. MURRAY, FLEET-STREET, AND C. DILLY, POULTRY;
AND FOR W. GORDON AND C. ELLIOT, EDINBURGH.

M DCC LXXXV.
TO HIS ROYAL HIGHNESS

GEORGE AUGUSTUS FREDERIC

PRINCE OF GREAT BRITAIN AND WALES,

PRINCE AND STEWARD OF SCOTLAND,

&c. &c. &c.

This Volume is with respectful humility inscribed,

As a first public acknowledgement,

Although inadequate expression of gratitude,

For the high honour derived

From the rank held in his R. Highness's household,

By his faithful

And devoted servant,

ANDREW DUNCAN.
PREFACE.

WHEN I present to the public this ninth volume of Medical Commentaries, it may not be improper to mention, that I have already made considerable progress in the collection of materials for the tenth. I hope, therefore, that I may be able to publish it by the beginning of the ensuing year. As this, however, will not altogether depend upon myself, I cannot omit the present opportunity of soliciting farther assistance. I am persuaded, that there are few intelligent observers, to whom, during the course of extensive practice, facts do not frequently occur which afford useful instruction to themselves. Have they not therefore reason to believe, that they may be also instructive to others? And, upon serious reflection, will they not be disposed to consider themselves as in some degree to blame, if, either from indolence, or even from some less culpable motive, such facts are withheld from the public?

I am far from pretending to be an advocate for the excellence of every thing contained in this
this publication; and I well know, that my readers are not unanimous in their judgment upon the comparative merit of different articles. Even the most rigid critic, therefore, will, I trust, excuse me, if I have here given a place to what may not merit any high degree of his approbation, since a very different opinion may be formed of it by others. And to those whose communications I have withheld from the public, I hope it will be a sufficient apology, that the suppression of them has not proceeded from partial or improper motives.

Exclusive of that information which they who have not leisure for extensive reading, or ready access to public libraries, may derive from the analysis of new books, I am convinced, that no candid reader can peruse the original observations which the present volume contains, without receiving an ample reward for his labour. While I can lay claim only to the humble merit of being instrumental in bringing these important observations to light, he must consider himself as indebted for the instruction which he receives, to those who have favoured me with such communications. It is by similar assistance alone that succeeding volumes can be rendered
P R E F A C E.

dered valuable. And I must also beg leave to add, that they who may hereafter favour me with important observations, will not only do an essential service to the public, but also confer a singular obligation

On their most obedient servant,

ANDREW DUNCAN.

Edinburgh,
Jan. 1, 1785.
CONTENTS
OF
VOLUME NINTH.

SECT. I. ACCOUNT OF NEW BOOKS.

I. Monro, Alexander, M. D. Observations on the Structure and Functions of the Nervous System, 1
II. Cullen, William, M. D. First Lines of the Practice of Physic, 19
III. Laffone, M. de, Histoire de divers Accidents graves, occasionnés par les Miasmes d'Animaux en Putrefaction, 57
IV. Bassignot, M. Histoire de la Maladie connue sous le nom de Crinons, 64
V. Bucquet, M. Memoire sur la manière dont les Animaux sont affectées par différents Fluides aéiformes mephitiques, 70
VI. Saillant, M. Recherches sur la Maladie convulsive epidemique attribué par quelques observateurs à l'Ergot, 78
VII. Bucquet, M. Observations sur l'Analyse de l'Opium, 84
VIII. Schwediauer, F. M.D. Practical Observations
CONTENTS.

vations on the most obstinate and inveterate
Venereal Complaints, 90
IX. Pearson, George, M.D. Observations and
Experiments for investigating the Chemical
History of the Tepid Springs of Buxton, 124
X. Balfour, Francis, M.D. A Treatise on the
Influence of the Moon in Fevers, 147

Sect. II. Medical Observations.

I. A Letter from Dr Robert Hamilton, Physician at Lynn Regis, to Dr Duncan, giving an Account of a successful Method of treating Inflammatory Diseases, by Mercury and Opium, 191

II. A few Hints on particular Articles of the Materia Medica, communicated in a Letter to Dr Duncan, from Antigua, by Dr James Adair, now Physician in Bath, 206

III. Account of a Discharge of Animals by the Anus, much resembling the common Caterpillar, communicated to Dr Duncan, in a Letter from Mr Robert Calderwood, Surgeon, Dalkeith, 223

IV. Account of extraordinary Effects from the Application of cold Water after Delivery, by Dr J. Fitzpatrick, of Dublin, 227

V. Account
CONTENTS

V. Account of a singular Tumour in the Groin, removed by Extirpation, by Mr James Bowen, Surgeon to the 30th Regiment, 233

VI. Observations on the Yellow Fever of the West Indies, communicated to Dr Duncan in a Letter from Dr Samuel Curtin, Physician at Rio Bueno, in Jamaica, 236

VII. Account of the successful Treatment of a Case of Hydrocephalus by Mercurials, by Dr A. Campbell, Physician, Hereford, 240

VIII. Observations on lymphatic encysted Tumours, communicated to Dr Duncan, in a Letter from Dr Charles Biflet, Physician at Knayton, Yorkshire, 244

IX. History of a Case of Angina Polyposa, by Dr Joseph Dixon, Physician in Whitehaven, 254

X. History of a Case of Ileus, in which great Benefit was derived from the Application of a Blist'er, by Mr Daniel Forbes, Surgeon at Dornock, 266

XI. Observations on the Dysentery, as it appears among the Negroes on the Coast of Guinea, by Mr Robert Atchison, Surgeon, 268

XII. History
xii CONTENTS.

XII. History of a speedy Recovery after the Operation of the Trepan, communicated to Dr Duncan by Dr James Gerard Physician in Liverpool, 272

XIII. Extract of a Letter from Mr Ivie Campbell, near Inverary, to Dr Duncan, giving an Account of a Sewing Needle lodged in the Breast of a Woman being removed by Incision, 275

XIV. History of a Case of Ileus, in which a considerable Portion of the Intestine was voided by Stool, communicated to Dr Duncan by Mr William Dougall Surgeon at Keith, 278

XV. History of an uncommon Enlargement of the Abdomen from an Affection of the Kidney, by Mr Philip Martineau, Surgeon at Norwich, 282

XVI. History of a Case of inveterate Dropsy successfully treated, with Observations on the Advantages from combining Cathartics and Diuretics, in a Letter to Dr Duncan from Dr John Grieve Physician to the Russian Army at Nigene Novgorod, 286

XVII. History of a Case in which Cataracts in both Eyes were removed by Electricity, by Dr
CONTENTS

Dr William Knox of the Northern Regiment of Scots Fencibles, 303

XVIII. Account of good Effects from the Vapour-bath in an Hydropic Case, communicated to Dr Duncan, in a Letter from Mr Darbey, Apothecary to the Infirmary at Manchester, 305

XIX. A Case of Angina Pectoris, from which it would appear that the Complaint is sometimes hereditary, by Dr Robert Hamilton of the 10th Regiment, 307

XX. Account of singular Convulsive Fits in three Children of one Family, by Dr F. Armstrong, Physician at Uppingham, 317

XXI. A Case of a Flap Operation united by the first Intention, by Mr Thomas Jones, Surgeon at Bingley, near Bradford, Yorkshire, late Surgeon to the Leeds Infirmary, 326

XXII. History of a Case of Imperforated Hymen cured by Incision, communicated to Dr Duncan by Mr David Niven Surgeon, 330

XXIII. A Case of Encysted Sarcocele, by William Gourlay, M. D. Physician in the Island of Madeira, and Member of the Medical Society of Edinburgh, 336

XXIV. Account
CONTENTS.

XXIV. Account of an uncommon Discharge from an opening made into a large Tumour in the under part of the Belly and Back, by Mr Thomas Collingwood, Surgeon at Alnwick, 344

XXV. History of a Diabetes successfully treated by the Use of Dover's Powder, by Dr Samuel McCormick Physician at Antrim, 349

XXVI. Account of the good Effects of Peruvian Bark and Madeira Wine in an obstinate Ulcer of the Leg, by Mr William Rait Surgeon, 354

XXVII. History of a singular Case of Purulent Ascites cured by Tapping, communicated to Dr Duncan, in a Letter from Glasgow, by Dr Alexander McLachlan, 360

XXVIII. Extract of a Letter from Mr William Grieve, Surgeon in Grenada, to Mr Kellie, Surgeon in Leith, on the Use of the Bark of the Angeline Tree, as an Anthelmintic, 365

XXIX. History of two Cases of Dropsy, communicated to Dr Duncan by Dr Arthur Broughton Physician to the Hospital at Bristol, 368

XXX. History
CONTENTS.

XXX. History of a Case of Tetanus successfully treated by the Use of large Doses of Opium, by Mr William Chavasse, Surgeon at Burford, Oxfordshire, 374

XXXI. An uncommon Case in Midwifery, accompanied with a Luxation of the Maxilla Inferior, occasioned by Convulsions, by Fielding-Beest Fynney, Esq; of Leek, in Staffordshire, 380

XXXII. History of two Cases of fractured Olecranon, with some Remarks, by Mr J. Haighton, Surgeon, London, 382

XXXIII. Case of Paralysis Rheumatica cured by Tinct. Guaiac. Volatil. and the application of Caustics, by the late James Johnston, M. D. of Worcester, 388

SECTION III. MEDICAL NEWS.

1. Different Accounts of the late Influenza, 393
2. Account of some Experiments on Cold, by Mr Wilton of Glasgow, 424
3. Account of Experiments on Cold, by Mr Kinnaird of Edinburgh, 425
4. Account of a Building begun at Edinburgh for the Physical Society, 456
5. Account
CONTENTS.

5. Account of the Prizes given by the Harveian Society of Edinburgh, 458
6. Account of Prize Questions proposed by the Medical Society of Edinburgh, 461
7. Account of Prizes bestowed by the Royal Medical Society of Paris, 464
9. Account of intended Publications, 468
10. Account of the Death of different eminent medical Practitioners, 472
11. New Members admitted into the College of Physicians and Surgeons of Edinburgh, 476
12. Account of the Use of the Wood Lizard in cutaneous Diseases, 478

SECT. IV. LIST OF NEW BOOKS. 480
MEDICAL

COMMENTARIES.

SECT. I.

Account of New Books.

I.


A Great part of the elaborate work now before us, consists of tables, and the explanation of these. Any analysis, therefore, which we can here give, must convey to our readers but...
an imperfect idea of its contents; and, for the information to be obtained from the different figures, we must refer them entirely to the work itself. We shall here content ourselves with giving a short account of the principal observations which Dr Monro has offered, and particularly of those opinions which are peculiar to himself.

In a short introduction, he mentions the importance of an exact knowledge of the structure and functions of the nervous system, both to the philosopher and the physician, and he observes, that this system consists of the brain, cerebellum, medulla oblongata, medulla spinalis, and the nerves with their ganglia. Of each of these parts he proposes to treat in order.

He sets out with offering some observations on the circulation of the blood within the head. After taking notice of the different causes mentioned by authors, tending to diminish the force of the blood sent to the brain and cerebellum, he observes, that this intention of nature appears most evidently in the ruminating animals. For he finds that a substance connected with the internal carotid artery, called by Galen the rete mirabile, and which has since been named, by other anatomists, plexus vasorum et fibrarum usus incogniti,
incogniti, consists entirely of a division of the artery into small serpentine branches, which are afterwards collected into a trunk, and divided nearly as in the human subject.

The quantity of blood which circulates in the brain, does not, he thinks, so far exceed the quantity circulated in other parts, as was supposed by Dr Haller. On a just comparison, not above one tenth of the whole mass is circulated within the head; which, however, is nearly four times more than, in general, is circulated in the rest of the aortic system. Notwithstanding the size of the lateral sinuses, and their continuation in the internal jugular veins, he thinks, that the venous trunks within the head are not much, if at all larger, than veins are with respect to corresponding arteries in other bowels, as the kidneys, spleen, &c.

After pointing out the primary uses of the sinuses, and the structure connected with these, as tending to secure regular circulation within the brain, and to prevent rupture, he observes, that, as the substance of the brain, like that of most other solids of our body, is nearly incomprehensible, the quantity of blood within the head must be the same, or very nearly the same, at all times,
times, whether in health or disease, in life, or after death, those cases only excepted in which water, or other matter, is effused or secreted from the blood-vessels; for in these, he observes, that a quantity of blood, equal in bulk to the effused matter, will be pressed out of the cranium. From this, however, he observes, it does not follow, that every individual vessel within the head is constantly of the same size, or that, at all times, it contains the same quantity of blood; nor does it follow, that opening the arteries and veins on the outside of the head can be of no service in the cure of inflammation, apoplexy, or other diseases of the brain. On the contrary, he thinks that the less compressible we suppose the substance of the brain to be, the more readily we understand how the whole of it may be affected by a plethora, or increased momentum of the blood, or how a particular part of it may be injured by inflammation or extravasation of the blood, or by any other cause of pressure on its substance.

In animals, however, killed by hanging, death, he observes, is not owing chiefly to the pressure on the vessels of the brain, but depends on the stoppage of respiration. This he thinks is proved by
by the following experiment: He cut a large hole in the trachea of a living dog, and then suspended him for three quarters of an hour by a rope fixed about his neck, above that hole. This neither killed him, nor deprived him either of sense or motion. He afterwards suspended him, for a quarter of an hour, by a rope fixed under the hole. From this he became insensible, and did not recover.

After some observations on the membranes of the brain and cerebellum in general, and on the communication of the ventricles with each other, as described by other authors, he next proceeds to give an account of the communication of the ventricles as observed by himself. But a mere description of these communications, without the aid of plates, would be almost, if not altogether, unintelligible. It is sufficient, therefore, here to observe, that he gives a clear demonstration, that, contrary to the opinion of most anatomists, the four ventricles do communicate with each other, and that they do not communicate with the cavity of the spinal marrow, as Dr Haller had supposed.

Without pretending to have yet been able to demonstrate valvular lymphatic absorbent vessels
in the brain of men or quadrupeds, yet, from various reasons which he mentions, particularly from his having discovered them in the brain of fishes, he has no hesitation in concluding, that absorption within the head, is in all animals performed, as elsewhere, by the lymphatic system. And he is of opinion, that the proof of this will be fully established, by accurate attention to those diseases in which acrid matter is collected within the cranium, or by proper experiments made on living quadrupeds, with colouring or strong scented substances, poured into the cavity of the cranium.

Contrary to the opinion of several eminent authors, Dr Monro is fully convinced, that the infundibulum is not a solid imperforated body, but is a hollow membranous tube, painted with many vessels; and, from considering that it is a hollow tube connecting the ventricles of the brain to the glandula pituitaria, that this gland resembles very much, in consistence and colour, the lymphatic glands; and, finally, that lymphatic vessels, when they reach their proper glands, divide within them into exceedingly minute branches, there seems to be reason for supposing, that the glandula
glandula pituitaria performs an office similar to that of a conglobate gland.

The cineritious substance of the brain, Dr Monro observes, is not merely cortical. For, as we constantly observe, that such parts as are cineritious without, are medullary within, so Dr Monro thinks we may invert the proposition, and remark, that, if any tuberele is medullary on the outer side, we shall, for certain, find cineritious matter within it; and, by a good injection with vermilion, this deep seated cineritious matter may be made as red as the cortical; but the most successful injection is far from shewing that it is entirely composed of vessels. Dr Monro, however, admits, that he has not, in any animal, been able to observe in it regularly shaped bodies, which might be supposed glandular.

From several observations on the origin and formation of the nerves, on the structure of the spinal marrow, on the pia mater, and on the colour and texture of the nerves, Dr Monro is led to conclude, that a small portion only of the brain, especially of the human, is elongated in order to form the nerves and spinal marrow; that the rest of it, as a medium between the li-
ving principle and other parts of the body, performs offices which are proper to it; that the opposite sides of the encephalon are joined by bundles of fibres, which is probably the cause of the general sympathy of nerves; that the right and left sides of the spinal marrow are less intimately connected than is commonly imagined, which is probably the cause why one side of the body is often much palsyed, whilst the other preserves its powers unimpaired; and, lastly, that our nerves, independently of the encephalon, possess an energy which they derive from their proper pia mater and its vessels; a circumstance which, in palsy, and other nervous diseases, should lead us not to confine our attention entirely to the state of the encephalon, the supposed sole origin of the nerves, but to attend to the state of circulation in the limbs affected.

Having considered the general texture of the brain, cerebellum and spinal marrow, and endeavoured to shew, that the nerves are not only covered with the pia mater, but that it furnishes to them, in their whole progress, a circitious substance, and nervous energy; and further, that the pia mater is not laid aside, in the retina, or within the cochlea, nor at the extremities
COMMENTS.

nities of the nerves in general, as has been universally supposed by authors, Dr Monro next proceeds to give a particular description of the appearance of the nerves in their course, of the nature of their plexuses, of the structure of nervous ganglia, and of certain spheroidal bodies connected with the brain and nerves of some animals.

It has been the common opinion of authors, that the nerves are the continuation of the medullary substance of the brain, cerebellum, or spinal marrow, collected into cords, which consist of longitudinal fibres, laid parallel to each other. But Dr Monro asserts, that when, in any of the four classes of large animals, we view the nerves carefully with the naked eye, or with a common magnifying glass, they appear to consist of a semipellucid substance, in which a more white, and opaque fibrous looking matter, seems to be disposed, in transverse and serpentine lines. When the nerve is fully relaxed, these serpentine transverse lines are best seen. When it is moderately stretched, they are less evident. But when it is greatly straitened, it appears uniform in its colour and consistence. These lines, he thinks, are therefore to be considered as folds or
or joints in the nerve, serving to accommodate it to the different states of flexion; and they seem also intended to increase the surface of the nerves, and the extent of their pia mater.

From accurate examination of the plexuses of nerves, Dr Monro has found, that in these, the different trunks were intermixed, and that every nerve under the plexus consisted of fibres of all the nerves which were tied together above its origin, from the plexus. He has also found, that small branches, which come off beyond the union of two larger nerves, consist of fibres from both; and even that in the whole extent of the nervous system, the subordinate cords, of which particular nerves consist, form, within their proper sheaths, a succession of plexuses, in which their fibrils are intermixed and combined.

When we cut a ganglion, Dr Monro observes, that we are so far from finding the course of the nerves to be interrupted within it, or its substance to be totally different from the nerves that enter it, that we are able to trace, in every part of the ganglion, nerves distinguishable by such folds or joints, as are seen in them in all other places; and since the nerves, which issue from
from a ganglion, are more bulky than the nerves which enter it, there is just reason to suppose, that nervous matter is furnished by the ganglia. He is therefore, upon the whole, of opinion, that the nerves which issue from ganglia, are formed by a combination of threads, from many sources, and that the nerves, in their course through a ganglion, receive new nervous energy from the vascular matter of the ganglion.

After these observations on ganglia, Dr Monro gives an accurate description of certain spheroidal bodies, which, in some animals, make a part of the nervous system: these are found in fishes of the genus of gadus, particularly in the cod, the whiting, and the haddock. Dr Monro at first suppos'd, that they might supply the place of ganglia, which he found wanting at the roots of their spinal nerves. But to this, he considers it as an objection, that in other fishes there is a similar defect of such ganglia. He has no doubt, however, that they must serve some office of high importance; and he thinks, that an accurate comparison with other kinds of fishes, and with other animals, may serve to throw light on the nature of the nervous energy.
In the succeeding chapter, Dr Monro describes and delineates several principal nerves which had not been properly traced by authors; particularly, the termination of the olfactory nerves in the nose, and of the portio molis on the membrane of the cochlea and semicircular canals of the ear, where it forms a most elegant plexus, hitherto unknown to anatomists. He next makes some remarks on the appearance of the nerves, viewed with the microscope. For this purpose, he employed a compound microscope, which increased the diameter of objects 146 times; and he illuminated the object by the light of the sun, reflected from a plain or concave mirror. He was much surprised to observe, that by the aid of this instrument, the ultimate fibres of nerves appeared to be serpentine and convoluted, very much resembling the winding of the seminal ducts, in the testicle or epididymis; and when he applied the microscope to the medullary substance of the brain, nay to the bones, the teguments, and even the hairs of the body, he was astonished to find in all a similar appearance. Of these appearances he delivered a particular account in his lectures, and illustrated this account by numerous drawings.
It was but natural to suppose, from the great number of pupils who attended his lectures, that his observations, with respect to these appearances, would soon become a general topic of conversation. To gratify, therefore, the curiosity of the public, thus excited, as well as to contradict very erroneous and ridiculous representations of this matter, which were circulated, we thought it might not be improper to give a short account in the Medical Commentaries, of the appearances which he had described. And although this was drawn up, without any request on the part of Dr Monro, yet he was so obliging as to peruse the manuscript, and to correct it before it went to the press. The account which is there given, may then be considered as no unfair representation of his sentiments on this subject in the year 1779. And in the work before us, Dr Monro mentions a variety of circumstances which led him to conclude, that it was real. But to these he has now added several particulars, which soon after this led him to suspect, and at last to conclude, that it was entirely an optical deception. He has, however, given several tables, each containing a variety of figures, representing what he now takes to be optical deceptions;
ceptions; and the reasons which he assigns for doing so are, that these appearances produced by the microscope, are so extremely regular and distinct, as to be very apt to mislead; that they have escaped the observation of authors, and that the consideration of the causes of them may tend to throw some light on the science of optics.

In treating of the nature of the nervous energy, Dr Monro offers some observations on the opinion which supposes, that it is similar to the electrical fluid. He concludes with observing, that we are far from possessing positive arguments that the nerves operate by this medium. And to say, he adds, that the offices of the nerves are not performed by a secreted fluid, merely because we cannot comprehend how any part of the blood, or any humour prepared from it, could render the mind sensible of an injury, or throw a muscle into action, is saying a great deal too much. For in the generation of animals, effects more incomprehensible and astonishing seem to depend on the secretion and mixture of the fluids of the testes, and ovaria; the brain, the nerves, the nervous energy, and the complex
plex fabric of other organs being thereby produced.

It is almost universally allowed, that by the medium of the nerves, we feel, and are enabled to perform motion. But, besides this, it has also been supposed, that they contain the matter by which the body grows, and is nourished. After entering at considerable length into the consideration of this hypothesis, after attempting to refute the arguments which have been urged in support of it, and to establish a contrary hypothesis, Dr Monro concludes, with observing, that, in his opinion, few points in physiology are so clear, as that the arteries prepare and directly secrete the nourishment, in all our organs; and that the nerves do neither contain, nor conduct nourishment, though by enabling the arteries to act properly, they contribute indirectly to nutrition.

Although it be very evident, that sensation, when accompanied with consciousness, takes place only while there remains a free connection between the part injured and the sensorium, by the intervention of the nerves, yet in consequence of wounds to muscular organs, soon after they are amputated, effects follow, which Dr
Dr Monro thinks cannot be accounted for on mechanical principles. Thus, a slight puncture of the heart of a frog, separated from its body, throws all the fibres of that heart into violent motion. This cause, he thinks, is so disproportionate to its effects, as to lead us to suppose, that some living principle has been influenced; and he is inclined to conjecture, that there may be two kinds of feeling, one with, and another without consciousness; the latter perhaps resembling that kind of feeling which we must suppose inherent in vegetables, and in consequence of which, their vessels are so actuated, as to produce still more numerous and wonderful changes on the fluids they convey and secrete, than are observed even in the animal kingdom.

It is the opinion of some eminent physiologists, that muscular fibres are the continuation of nerves, or are formed by them. Thus, they have of late been called the moving extremities of the nerves. But, from several circumstances, Dr Monro concludes, the muscles, or muscular fibres, are organs sui generis, not produced by nerves, but merely influenced by the energy they convey. This, however, he observes, should, in no degree, lead us to adopt the idea of
of Dr Haller, that muscles, besides being thrown into action by the vis nervea, do also act by a vis insita, differing from, and unconnected with this vis nervea. On the contrary, our author relates several experiments, from which it appears, that the supposed vis insita is destroyed and excited, by the same means as the vis nervea; from which it seems clearly to follow, that there is no just ground for supposing, that any other principle, excepting the vis nervea, is concerned in producing the contraction of a muscle.

In the last chapter of the work before us, Dr Monro considers the manner and causes of the actions of muscles. On this subject, he gives a brief enumeration of the chief spontaneous motions of animals; and he proves by many arguments, that we are not to explain, from connection of nerves, the regular motions of our different organs, produced by gentle and usual stimuli, such as the action of the iris, alimentary canal, heart, &c. Upon the whole, he thinks it appears, that these actions are not to be accounted for, on the yet known principles of mechanism; that the muscular fibre varies its operation, according to the purpose to be served; and that the more we consider the various spontaneous
taneous operations, the more fully shall we be convinced, that they are the best calculated for the preservation and well-being of the animal. When we throw into the scale, the various effects of what has commonly been called the instinct of animals, does it not, says he, appear, that the most just, as well as most becoming conclusion we can draw, is, that the power which created all things, which gave life to animals, and motion to the heavenly bodies, continues to act upon, and to maintain all, by the unceasing influence of a living principle, pervading the universe, the nature of which, our faculties are incapable of duly comprehending.
Com mentaries. 19

II.


In former parts of our work, we have given a pretty full analysis of the first and second volumes of Dr Cullen’s First Lines. We now proceed to give some account of the principal doctrines contained in the third and fourth volumes, which have lately been published. Having, in the two former volumes, treated of these affections which he refers to the general class of pyrexiae, or febrile diseases, Dr Cullen proceeds in the third volume, to treat of his second class, the neuroses or nervous diseases. In a certain view, he observes, all diseases might be termed nervous. But, under this title, he here
here comprehends those preternatural affections of sense or motion which are without pyrexia, as a part of the primary disease, and all those which do not depend upon a topical affection of the organs, but upon a more general affection of the nervous system, and of those powers on which sense and motion more especially depend. This class he divides into four orders, under the titles of comata, or soporose diseases; adynamiae, or diseases consisting in a weakness or loss of motion in either the vital or natural functions; spasms, or spasmodic affections; and vesaniae, or disorders of the intellectual functions. And he treats in order of different genera referred to each of these.

The first disease which he considers under the comata, is apoplexy. In this disease, he observes all the external and internal senses, and all the voluntary motions, are in some degree altered, while respiration and the action of the heart continue. By the affection of all the powers of sense, he thinks it may be distinguished from palsy, and by the continuance of respiration from syncope. He holds the proximate cause of this disease to be, in general, whatever interrupts the motion of the nervous power,
from the brain to the muscles of voluntary motion, or from the sentient extremities of the nerves to the brain. And this, he thinks, may be occasioned either by some compression of the origin of the nerves, or by something destroying the mobility of the nervous power. The chief causes of compression are, according to our author, blood accumulated in the vessels of the brain, or fluids effused within the cranium. And, he thinks, that there is some foundation for the common distinction of this disease into the sanguine and ferous, though it cannot be usefully applied in practice, as both kinds often depend on a venous plethora, and therefore require very nearly the same method of cure. Among the causes exciting apoplexy, by destroying the mobility of the nervous power, he enumerates mephitic air, metallic fumes, opium, alcohol, and many other narcotic poisons.

Apoplexy, he thinks, may often be prevented, by avoiding the remote and exciting causes, but more especially by obviating the predisposing cause, which, in most cases, is, he imagines, a plethora or state of the blood-vessels of the brain. Besides moderate exercise, low diet, gentle laxatives and occasional blood-letting, where
there are manifest signs of a plethoric state in the vessels of the head, he recommends a seeton, or pea-issue, near the head. When the disease has taken place, the patient must be kept as much as possible in an erect posture, and in cool air. Where there are marks of plethora, blood-letting is to be immediately, and very largely employed, purging is to be attempted by acrid glysters, and blisters are to be applied to the head, which our author supposes to be chiefly useful, from taking off the hæmorrhagic disposition so often prevailing there. Vomiting, which is recommended by some practitioners, our author has never employed; and notwithstanding the almost universal use of stimulants, he is disposed to think them generally hurtful, at least wherever the fulness of the vessels, and the impetus of the blood in them, requires to be diminished. He allows, however, that when evacuations have been made by blood-letting and purging, stimulants may be employed with more probability of success and safety, in apoplexy arising from those causes which directly destroy the mobility of the nervous power; and he recommends, as one of the most effectual means of rousing apopleptics of this kind, the throw-
ing cold water on different parts, and washing the body all over with it.

In the second chapter, Dr Cullen treats of palsy; a disease which he considers as consisting in the loss of the power of voluntary motion, and as distinguishable from apoplexy, by its affecting certain parts of the body only. He views all proper palsy as depending on interrupted influx of the nervous power. This he thinks may arise from an affection of the nerves, either at their origin, or in some part of their course; and compression giving interrupted influx may arise from tumour, over-distension or effusion.

In the treatment of palsy, Dr Cullen considers it as an object of great consequence, to determine whether stimulants ought to be employed or not. He is of opinion, that they are dangerous in all cases succeeding a paroxysm of complete apoplexy, in all cases where it affects patients of large heads, short necks, and corpulent habits, and in all cases which come on with apoplectic symptoms. On the contrary, they are chiefly useful, where the disease has subsisted for some time, when symptoms giving suspicion of compression are removed, and when it
is known that narcotic powers have been applied. Where stimulants are not to be employed, the cure of palsy, particularly in the beginning, is very nearly the same with that of apoplexy.

Where stimulants are proper, they have been employed both externally and internally; and the external stimulants may be used either to affect the part to which they are particularly applied, or the whole system. Of the first kind are concentrated acids of vitriol and nitre, or volatile alkaline spirits, involved in oily or unctuous substances, strong solutions of sea salt, essential oils of aromatic plants, essential oils of turpentine, or other resinous substances, distilled oils of amber, or other bituminous fossils, rectified empyreumatic oils, various vegetable acrids, particularly mustard, and acrid matter found in some insects, as cantharides. As such, may also be enumerated stinging with nettles, and mechanical friction. The external stimulants affecting the whole system, are the powers of heat, of cold, and of electricity. The internal stimulants chiefly employed in palsy, are the volatile alkaline salts, acrid vegetables, particularly those of the class of tetradymania, various aromatics,
aromatics, resinous and terebinthinate substances, fœtid antispasmodic medicines, bitters and the Peruvian bark. From the three last, however, he remarks, that he has never been able to observe any good effects. And indeed, with respect to the whole internal stimulants, he is of opinion, that they seldom prove very powerful, that they are often ambiguous, and may readily do harm.

After apoplexy and palsy, Dr Cullen next proceeds to treat of his second order of the neuroses, which he styles Adynamiae, or diseases consisting in a weakness or loss of motion, in either the vital or natural functions. Under this order he considers three genera, syncope or fainting, dyspepsia or indigestion, and hypochondriasis or low spirits.

In syncope, the pulse and respiration become considerably weaker than usual, or for a certain time these functions altogether cease. He thinks all the remote causes of this disease may be referred to two general heads. 1st, Those existing and acting in the brain, or in parts of the body remote from the heart, but acting upon it by the intervention of the brain; and, 2dly, Those existing in the heart itself, or in parts very
very immediately connected with it, and thereby acting more directly in producing this disease. When the disease depends on an organic affection of the heart, or large vessels, Dr Cullen considers it as being in general incurable. In other cases, syncope, he observes, may in general be cured, by avoiding the occasional causes, and by correcting debility and mobility of the system, which he considers as being the circumstance principally giving predisposition to this disease.

After syncope, Dr Cullen next treats of dyspepsia, an affection well known in common language under the title of stomach complaints. Though the symptoms of this disease are numerous, and considerably diversified, yet, when they occur as an idiopathic affection, he considers the proximate cause to be an imbecility, loss of tone, and weaker action in the muscular fibres of the stomach. He admits, however, that a change in the quantity or quality of the fluids employed in digestion, may produce a considerable difference in the phenomena of that function. In this disease, the preservative cure depends on avoiding the remote causes which tend to induce it, the palliative, in removing those
those symptoms which especially contribute to aggravate the disease, and the curative, in restoring the tone of the stomach. After pointing out the means of obviating cruities of the stomach, indicated by the eructation of imperfectly digested matters, acidity, and colliveness, which he considers as the three most distressing symptoms, he next proceeds to consider the means of restoring the tone of the stomach. There are some medicines, he observes, which as affecting this, act directly and chiefly on the stomach itself; there are others, which, operating on the whole system, have their tonic effects thereby communicated to the stomach. The medicines operating in the former way, are stimulants, either saline or aromatic, and tonics, as various bitters, astringents, and chalybeates. The remedies again which chiefly strengthen the stomach, by being applied to the whole body, are exercise and cold. And, from the advantage which results from the combination of these two, no exercises within doors are so useful as those in the open air.

In the succeeding chapter, our author treats of the hypochondriac affection, commonly called vapours or low spirits. Where vapours and stomach
march complaints occur in the sanguine temperament, Dr Cullen thinks that it should still have the appellation of dyspepsia; but, to the combination of dyspepsia and vapours, in melancholic temperaments, he is of opinion that the appellation of hypochondriasis is to be strictly applied. But, as a still further means of distinguishing these diseases, he observes, that dyspepsia often appears early in life, while hypochondriasis is usually in more advanced years only; that, in the former, the affection of the mind is often absent, perhaps always slight; in the latter it is more constant and severe, while the affections of the stomach are often absent; and, lastly, that dyspepsia is a frequent, hypochondriasis a much more rare disease.

From these differences between dyspepsia and hypochondriasis, notwithstanding the similarity of the stomach ailments, the practice, Dr Cullen thinks, must be considerably different. And accordingly, while in dyspepsia the chief remedies are tonic, these, he thinks, are neither safe nor necessary in hypochondriasis. For, in this, there is not a loss of tone, but a want of activity, to be remedied. He admits, however, that chalybeate mineral waters, and cold bathing,
ing, have often been employed in hypochondriasis, seemingly with success. But he adds, that warm bathing, hurtful to the dyspeptic, is often extremely useful to the hypochondriac, which is also the case, he observes, with the drinking tea and coffee.

Exercise, as it excites the activity of the stomach, proves a powerful remedy in hypochondriasis. But it is here still more useful by its operation on the mind; and the treatment of the mind, in hypochondriasis, he considers as an object of the utmost importance. Hypochondriacal patients are neither, he observes, to be treated by raillery nor reasoning, but the cure chiefly depends on the interruption of their attention, or upon its being diverted to other objects than their own feelings. Business suitable to their circumstances, if neither attended with emotion, anxiety, nor fatigue, is to be enjoined; and where this cannot be accomplished, various kinds of sports, as hunting, and all amusements in the open air, joined with moderate exercise, are generally of use. Within doors, company which engages attention, and play, in which skill is required, may often be employed with advantage. Where other amusements
ments are rejected, mechanical means of inter-
rupting thought are to be sought for. This is
chiefly to be obtained, by riding on horseback,
by failing in an open boat, by driving quickly
in a carriage on rough roads, and the like.
And exercise of all kinds will be most effec-
tually employed, he observes, in the pursuit of a
journey.

The third order of nervous diseases in Dr
Cullen’s system are the spasmodic affections. To
this head he has referred a considerable number
of different genera, which has led him to divide
them into spasmodic affections of the animal,
the vital, and natural functions. Under the first
he treats of tetanus, epilepsy, and chorea: Un-
der the second he considers palpitation of the
heart, dyspnœa, asthma, and hooping-cough;
and, under the third, pyrosis, colic, cholera,
diarrhoea, diabetes, hysteria, and canine madness.
Without endeavouring to detail what he has
said respecting each, we shall attempt to give
some view of his sentiments respecting the prin-
cipal of these affections.

He considers epilepsy as consisting in convul-
sions of the greater part of the muscles of volun-
tary motion, attended with a loss of sense, and
ending
ending in a state of insensibility, and seeming sleep. With respect to the proximate cause of this disease, he thinks he might say, that it is an affection of the energy of the brain, which, ordinarily under the direction of the will, is here, without any concurrence of it, impelled by preternatural causes. But he observes, that he can go no farther. The occasional causes of the disease, may, however, he thinks, be referred to two general heads, those which act by stimulating and exciting the energy of the brain, and those which act by weakening it. The first may either act immediately and directly on the brain itself, or be communicated to the brain when applied to other parts of the body. Of the former kind are mechanical stimulants, chemical stimulants, mental stimulants, and the peculiar stimulus of over-distension. Of the latter kind are all impressions on remote parts, exciting an exquisite degree either of pleasure or pain. Among the causes which induce epilepsy, by weakening the energy of the brain, Dr Cullen enumerates haemorrhagy, terror, horror, the influence of certain odours, and the operation of particular poisons. As an occasional cause of epilepsy, different from all these, he mentions, in the last place,
place, that peculiar one, whose operation is accompanied with what is called the aura epileptica. It is natural, he thinks, to imagine, that this peculiar sensation, beginning at a particular part, is an evidence of some irritation, or direct stimulus, acting in that part, and from thence communicated to the brain; but the remarkable difference which occurs, in seemingly like causes producing tetanus, gives some doubt on the subject.

As these occasional causes, while they induce the disease with some, have no influence on others, it is evident that, in order to their action, a certain predisposition is required. And this predisposition, our author thinks, consists in a certain degree of mobility. But, besides this, a disposition to the disease seems to be given by sleep. For, in many persons, the fits happen only in the time of sleep, or immediately on coming out of it.

In the treatment of this disease, our author observes, that the sympathetic and idiopathic require a separate consideration. In the first of these cases, when the disease depends on acidity or worms in the alimentary canal, teething, or similar causes, the primary affection must be removed.
moved. But, in the case of the aura epileptica, as the nature of the affection is not obvious, general directions only can be given. And, on this subject, our author observes, that, when the part can with safety be entirely destroyed, we should endeavour to do so, by cutting it out, or by the application of an actual or potential cautery. When it cannot be properly destroyed, we should endeavour to correct the morbid affection in it, by blistering, or by establishing an issue upon the part. When these measures cannot be executed, or do not succeed, if the disease seems to proceed from the extremity of a particular nerve, which we can easily come at in its course, we must cut through the nerve. And, lastly, when it cannot be perceived that the aura arises from any precise point, a ligature must be applied upon the limb, above the part from whence the aura arises. This he recommends as always proper, both because the preventing of a fit breaks the habit of the disease, and because frequent compression, has the effect, he thinks, of rendering the nerves less fit to propagate the aura.

In the cure of idiopathic epilepsy, two general indications are, he thinks, to be formed. The
first is, to avoid occasional causes, and the second, to remove or correct the predisponent. For the most part, the occasional causes, as far as they are in our power, need only to be known in order to be avoided. But, in general, a radical cure is to be obtained only by removing or correcting the predisponent cause. This, as consisting in a certain mobility of the senforium, and depending either upon a plethoric state of the system, or upon a certain state of debility in it, is to be combated in different ways. The plethoric state is chiefly to be corrected by a proper management of exercise and diet. An abstemious course, he observes, has frequently been found to be the most certain means of curing epilepsy. And the utility of issues in this disease, is, he thinks, to be attributed to their obviating a plethoric state of the system; though he admits, that they may also operate by preventing occasional turgescences from acting on the brain. Blood-letting, though the most effectual means of correcting the plethoric state of the system, yet, as it often favours the return of plethora, is not a remedy advisable in every circumstance of epilepsy. But, when there is an occasional or periodical recurrence of the fulness
fulness or turgescence of the sanguiferous system, giving occasion to a recurrence of the disease, its effects are to be obviated by the only certain means of doing so, a large blood-letting.

Where debility giving mobility is owing to original conformation, it is perhaps not possible to cure it. Where it can be corrected, it is chiefly, Dr Cullen thinks, to be accomplished by being much in cool air, by the frequent use of cold bathing, by exercife adapted to the ftrength and habits of the patient, and by the use of astringent and tonic medicines. But when debility proceeds from inanition, the ftrength may be restored by a nourishing diet.

Among the tonics, he enumerates fear, or some degree of terror; and thus he accounts for the operation of several seemingly superfluous remedies, the influence of which, if they have ever been successful, is, he thinks, to be attributed to the horror they had inspired. As vegetable astringents, bitters, and tonics, the articles which he chiefly mentions, are the vicus quercinus, the orange-tree leaves, and the Peruvian bark. But all these, he observes, often fail, and the metallics seem to be more powerful. As such, he observes, recourse has been had to arsenic, to pre-
parations of tin, of iron, and of zinc. But he seems inclined to give the preference to the pre-
parations of copper, particularly to the cuprum ammoniacum, which, he observes, has of late
been frequently found successful. He remarks, however, that where the disease depends either
upon a constant, or even occasional plethoric state of the system, all these remedies are not
only likely to be ineffectual, but, if sufficient evacuations be not made at the same time, to be
very hurtful.

The effects of great mobility in the system, Dr Cullen observes, may be obviated by anti-
spasmodics. As such, he mentions valerian, musk, oleum animale, hyoscyamus, and opium.
He considers the last of these articles as being the most powerful, where the disease depends
on irritation or increased irritability, but thinks it will prove hurtful where there is a plethoric
state. Antispasmodics, in general, he considers as perhaps only useful when employed in the
time of epileptic fits, or very near their accession. And he concludes with observing, that,
as the disease is often continued by the power of habit, a considerable change of climate, diet,
and
and other circumstances in the manner of life, has not unfrequently proved a cure.

Hooping-cough, which Dr Cullen ranks among the spasmotic affections of the vital functions, is a disease, he observes, commonly epidemic, and manifestly contagious. And he admits, that it proceeds from a contagion of a singular and specific quality. With respect, therefore, to its cause, it has little analogy to the other diseases which he has referred to the same order. Its attack, he observes, is in general with the ordinary symptoms of catarrh; and, in some instances, it puts on no other form. But much more frequently, in the second or third week, it acquires its peculiar and characteristic symptom, the convulsive cough, succeeded by hooping, and, in many cases, terminating by expectoration or vomiting. When the disease has taken this proper form, in most instances it continues for a considerable time, generally from one to three months, sometimes much longer, and attended on different occasions with various circumstances, which we reckon it unnecessary to detail.

With regard to the event of this disease, our author observes, that the youngest children are
in the greatest danger, particularly those of phthisical and asthmatic parents; that expectoration either very scanty or very copious, is attended with danger, particularly if there be, at the same time, great difficulty of breathing; and that, in general, the danger of the disease is in proportion to the dyspnoea and fever which attend it.

When the contagion of this disease is recent, Dr Cullen observes, that we neither know how to correct nor expel it; the affection, therefore, must necessarily continue for some time. But he thinks it probable, that the contagion at length ceases, though the convulsive affections continue by the power of habit. The remedies, therefore, at first to be employed, are such as may obviate the violent effects, and fatal tendency of the disease. But, after it has continued for some time, the only remedies required are those which may interrupt its course, and put an entire stop to it sooner than it would have spontaneously ceased.

For answering the first indication, he considers blood-letting as being, in plethoric subjects, a necessary remedy. It is requisite to remove constiveness by laxatives; and, for obviating inflammatory
flammatory determination to the lungs, blistering is often useful. But, of all remedies, he considers emetics as most useful, both by interrupting the return of spasmodic affections, and by determining very powerfully to the surface of the body, and thereby taking off determination to the lungs. With these intentions, he recommends that full vomiting should be frequently employed, and that nauseating doses of antimonial emetics should be given during the intervals.

For answering the second indication, interrupting, viz. the course of the disease after the contagion has ceased to act, he observes, that terror may possibly be a powerful remedy, and has frequently produced an immediate cure. But, as a high degree of it is dangerous, he thinks it is not to be employed. The remedies, therefore, which he recommends as suited to this indication, are antispasmodics and tonics. As referable to the first of these classes, he mentions the use of castor, musk, and cicut; but he considers opium as being the most powerful. As referable to the tonics, he takes notice of the cupmofis, and the mistletoe, but he considers the Peruvian bark as the most certain means
means of curing the disease in this stage. And although he admits that he has seen good effects from change of air, yet he observes, that he has never found them to be durable, or sufficient for putting an entire stop to the disease.

Under the spasmodic affections of the natural functions, Dr Cullen, as we have already observed, ranks diabetes. This disease, however, consists, he allows, in voiding an unusually large quantity of urine, which, although the thirst be excessive, often exceeds the whole quantity both of liquids and solids taken in. Diabetic urine is always clear, but often tinged with a yellowish green. Examined by the taste, it is commonly found more or less sweet; and it has, by experiment, been found to contain a considerable proportion of saccharine matter, very exactly of the nature of common sugar. And the presence of this saccharine matter, Dr Cullen considers as the principal circumstance in idiopathic diabetes.

With regard to the proximate cause, he observes, that some have supposed it to proceed from a relaxed state of the secretory vessels of the kidneys, and he admits, that such a state has been found on dissection; but he thinks, that it
is rather to be considered as the effect than as the
cause of the disease. That a fault in assimula-
tion is rather to be blamed, he concludes, from
observing that even the solid food which is ta-
ten increases both the quantity of urine voided,
and the saccharine matter which it contains.
But this theory, he allows, is embarrassed with
many difficulties. And, as the proximate cause
is so little ascertained, he cannot propose any
rational method of cure. On this subject, he
rather thinks it prudent to suspend his opin-
ion, as in all the instances which he has had
occasion to treat, no cure has been made, al-
though most of the remedies recommended by
practical writers were diligently employed.

After the spasmodic affections, the next order
of nervous diseases which Dr Cullen proceeds
to consider, are the vesaniae, or disorders of the
intellectual functions. He introduces this sub-
ject, by some observations on these affections in
general. He limits this class entirely to lesions
of our judging faculties; and these, he thinks,
may be distinguished as they affect persons, when
awake or when asleep. Those which take place
in the first situation, may again be viewed, ei-
ther as consisting in erroneous judgment, to
which
which he gives the appellation of *delirium*, or in weakness and imperfection of judgment, which he terms *futility*.

Delirium, he thinks, may be defined in a person awake, a false judgment, arising from perceptions of imagination, or from false recollection, and commonly producing disproportionate emotions. This delirium is of two kinds, either as being combined with pyrexia and comatose affections, or as being entirely without any such combination. This latter case is named *insanity*; and as it is of this affection that Dr. Cullen here means to treat, he next attempts an investigation of its cause in general. He takes it for granted, that these affections of mind must be considered as depending on a certain state of the corporeal part of the system, and that the part of the system more immediately connected with mind, is the brain. But he admits, that it is a very difficult matter to discover those states of the brain which give occasion to various states of the intellectual functions. He allows, that the motion of the blood, in the vessels of the brain, has some share in affecting the operations of the intellect. But he thinks it is probable, that the state of its functions depends chiefly on the condition
dition of the nervous power. He thinks it evident, that the nervous power in the whole, as well as in the several parts of the system, and particularly in the brain, is at different times in different degrees of mobility and force. Where these are increased, he gives it the name of excitement, and where they are diminished, of collapse. These states of excitement and collapse, he thinks, can take place, not only in different degrees, but in different parts of the brain. And from several circumstances, he endeavours to shew, that delirium may be, and frequently is occasioned by an inequality in the excitement of the brain; and he thinks it is sufficiently evident, that the brain may be at one and the same time in different conditions with respect to the several animal, vital and natural functions.

After this explanation of the general cause of delirium, he proceeds next to the consideration of that modification of it which he has termed insanity. And here he observes, that upon dissection, after death, it has been found, that peculiar circumstances had taken place in the condition of the brain. While in some cases it has been observed to be of a drier, harder and firmer
firmed constitude than usual, in others it has been in a more humid, soft and flaccid state; and in a third set, considerably changed in its specific gravity. And in several instances, it appears, that these states were different in different parts of the brain, which he thinks affords a confirmation of his general doctrine. He looks upon it as probable, that such organic affections may have produced different degrees of excitation in the free and affected parts of the brain, and must have interrupted, in some measure, the free communication between the several parts of the brain, and in either way occasioned infancy. But although so many instances of organic lesion in the brain have occurred in diseases of this kind, that some physicians have been disposed to suspect they exist in every case; yet our author imagines, that this is probably a mistake, as there are many examples of complete reconvalescence. He thinks it therefore probable, that without any organic affection, a state of excitement, changeable by various causes, may also produce infancy.

After these general observations, Dr Cullen next proceeds to treat of the different states of infancy;
COMMENTARIES

insanity; and these he considers under the two heads of mania and melancholia.

The whole circumstances and symptoms of mania appear to Dr Cullen to point out a considerable and unusual excess in the excitement of the brain, especially with respect to the animal functions; and this excitement, he thinks, at the same time, appears to be unequal, as it very often takes place with regard to the animal functions alone, while the vital and natural are little changed from their ordinary state. This idea of the disease, Dr Cullen thinks, clearly explains the operation of those remedies which have proved most successful; and to some remarks on these he next proceeds. For restraining their anger and violence, he recommends the strait waistcoat; and when it is necessary to confine them, it should be in a place which presents as few objects as possible, either of sight or hearing. Fear being a passion that diminishes excitement, may, he thinks, be opposed to the excess of it; and he recommends, in general, at least, a diet both low and spare.

With respect to medicines, though no unusual fulness of the body be present, it may be of advantage to diminish even its ordinary fulness, by different
different evacuations. Blood-letting he considers as of service in all recent cases of mania; but he has seldom found it useful, when the disease has subsisted for some time. Although he has sometimes observed benefit from drastic purgatives, yet he thinks, that more advantage may be derived from those of the cooling kind, particularly from the soluble tartar. Respecting the effects of vomiting, which has frequently been employed in mania, he is doubtful; and he has not, he tells us, had sufficient experience to determine, whether it may do harm, by impelling the blood too forcibly to the vessels of the brain, or do good, by removing the inequality of excitement, from the general agitation of the whole system. While some benefit may be derived from shaving the head, still more, he thinks, is to be reaped from blistering, at least in recent cases. But when the disease has been of long standing, he has found no benefit either from blisters, or any form of issue.

As heat is the principal means of first exciting the nervous system, the application of cold might naturally be supposed to be a proper remedy in mania. But he thinks, that the general application of cold has probably no great influence, since
since there are many instances of maniacs being exposed to it for a great length of time, without any relief of their symptoms. It is, however, he observes, certain, that they have sometimes been entirely cured by the use of cold bathing. To conjoin the effects of fear with cold, he advises, that they should be thrown suddenly into the water, by surprise; and while the body is immersed, he recommends, that water should be poured frequently upon the head. Warm bathing, which has been recommended by some, he has found, in the common mode of applying it, to be rather hurtful to maniacs.

In some maniacal cases, Dr Cullen has employed large doses of opium; and where it had the effect of inducing sleep, it was manifestly with advantage. He has made several trials with camphor, even in large doses, but has found no benefit from it. Some instances, he remarks, are to be found on record, where maniacs have been cured, by being compelled to constant, and even hard labour. And he concludes his observations on the remedies, with observing, that he has known a complete cure take place in the course of a journey, carried on for some length of time.

Melancholia,
Melancholia, which Dr Cullen considers as a partial insanity, is, he thinks, chiefly to be distinguished from its occurring in persons of the melancholic temperament, and being always attended with some seemingly groundless, but very anxious fear. This state of mind, he considers as attended with a state of brain corresponding to it; and he thinks it probable, that it depends upon a drier and firmer texture in the medullary substance of the brain.

In the treatment of this disease, with respect to the management of the mind, he recommends, that the attention of the patient should be turned from the object on which it is fixed, and that proper artifices should be employed for correcting the false imagination or judgment. Cooling purgatives, he considers as highly proper in this disease, while blood-letting is less seldom admissible than in mania. While he considers cold bathing as hardly ever admissible in this disease, he thinks that the warm bath may often be useful. Opiates, he thinks, are seldom proper; and though low diet be sometimes necessary, yet vegetable food is to be used with caution.

Having
COMMENTARIES. 49

Having finished the consideration of the pyrexiae and neuroses, in the third and last part of the work before us, Dr Cullen proceeds to treat of the cachexiae. Under the title of cachexies, he establishes a class of diseases, which consist in a depraved state of the whole, or a considerable part of the habit of the body, without any primary pyrexia or neurosis combined with that state. These he divides into the three orders of marcores, or emaciations; intumescentiae, or general swellings, and impetigines, or depravation of the habit, with affections of the skin.

On the first of these subjects, Dr Cullen contents himself, with offering some observations on the causes of emaciation, which he thinks may be referred to two general heads, either to a general deficiency of fluids in the vessels of the body, or to the particular deficiency of oil in the cellular texture. And where they are idiopathic, they are entirely to be cured, he observes, by removing the remote causes; but as the greater part of the cases of emaciation are symptomatic, the cure must be accommodated to the primary disease.

The intumescentiae are divided by Dr Cullen into the adipose, the flatulent, the watery swellings,
lings, and lastly, those which arise from an increased bulk of the whole substance of particular parts. After some observations on the pathology of adipose, flatulent and watery swellings in general, Dr Cullen treats of anasarca. This, he observes, is evidently a preternatural collection of serous fluid in the cellular texture, immediately under the skin. The cure, he tells us, is to be attempted on three general indications. 1st, The removing the remote causes of the disease; 2dly, The evacuation of the serous fluid already collected in the cellular texture; and, 3dly, The restoring the tone of the system, the loss of which may be considered, in many cases, as the proximate cause of the disease. The removal of remote causes must be entirely accommodated to particular circumstances. The evacuation of water may be performed, either by drawing it directly from the dropsical part, or by exciting serous excretions. With the first of these intentions, recourse may be had to puncture, to pea-issues, to blisters, to the application of colewort-leaves, of oiled silk-hose, and the like. But he observes, that he has never found the two last of these practices of much service, while he represents the former as not without
without hazard. For drawing off the water in anaasarca, by the serous excretions, recourse may be had, he observes, to purgatives, diuretics or sudorifics. Although by spontaneous vomiting, absorption has been excited in hydropic cases, yet as it is requisite that strong antimonial emetics should be employed, and frequently repeated, patients will not readily submit to this practice.

After the water in anaasarca is evacuated, it becomes necessary to attempt to restore the tone of the system. And indeed Dr Cullen observes, that this indication may properly have place even from the very first appearance of the disease. Thus, on the appearance of oedematous swellings of the feet and legs, bandaging, friction and exercise have often been used with advantage. But besides these, various articles may be used for restoring the tone of the system; particularly chalybeates, the Peruvian bark, and various bitters. Cold bathing, though the most powerful tonic we can employ, can, however, scarcely be used, he thinks, till the system has recovered a good deal of vigour. But it may then be effectual in confirming and completing a cure. He concludes, with observing, that
that in persons recovering from dropsey, it will be proper to keep constantly in view, the support of the watery excretions, particularly keeping up perspiration, by a great deal of exercise, and continuing the flow of the urinary excretion, by the frequent use of diuretics.

To the observations on anaerica, Dr Cullen subjoins some remarks on hydrothorax and ascites, after which he proceeds to treat of general swellings, arising from an increased bulk of the whole substance of particular parts. Under this head, the only disease which he considers is rachitis. This disease, he observes, seldom appears before the ninth month, or after the second year of a child’s age; and from the phenomena of the affection, he thinks, it consists in a deficiency of that matter which should form the solid parts of the body, and this proceeding from a general laxity and debility of the system.

Upon this supposition, he thinks, that the cure of rickets has entirely proceeded, the remedies especially suited to the disease being such as improve the tone of the system in general, or of the stomach in particular. Among the tonic remedies, he tells us, that he has found cold ba-
thing the most useful, both in preventing, and sometimes even in curing the disease. Recourse, he observes, has also been had to preparations of iron and copper, and to the Peruvian bark. Of these, however, he has had but little experience. He strongly recommends exercise, under the form of gestation; and thinks it highly probable, that friction with dry flannels may be an useful remedy. Although milk, as an article of diet in rickets, has been objected to by some; yet he affirms, that in many instances in which he has directed it, the cure was not retarded. But he prefers the milk of cows to that of women, as the latter is the most watery nourishment. Besides the remedies and regimen mentioned above, he takes notice also of the use of emetics, purgatives, testaceous powders and hemlock, as having been recommended in this disease. The occasional use of the two former, may, he thinks, be productive of advantage; but he has had no experience of much benefit being derived from the latter.

Under the head of impetigines, the last order of diseases which Dr Cullen refers to his class of cachexiae, and with which he concludes the present
scent volume, he treats of scrophula, syphilis, scurvy and jaundice.

From the appearance of scrophula in particular constitutions, and at a particular period of life, and even from its being a hereditary disease, Dr Cullen is led to conclude, that it depends upon a peculiar constitution of the lymphatic system. But we have not yet, he observes, learned any practice that is certainly, or even generally successful. He thinks, however, that washing out the lymphatic system is a measure promising success. And on this ground he accounts for the benefit obtained from the mineral waters, whether of the chalybeate, sulphureous or saline kind; for he is disposed to think, that the elementary water is the chief part of the remedy. Nor has he ever been able to discover the superior efficacy of sea-water. Among the numerous other internal remedies which have been employed, he thinks, that some benefit may be obtained from Peruvian bark, coltsfoot and hemlock. But he has never found any advantage either from antimony or mercury; and when there is any degree of a feverish state, he thinks, that the latter proves manifestly hurtful. In the management of scrophulous tumours,
COMMENTARIES

...tumours, he thinks, that benefit may sometimes be derived from solutions of saccharum Saturni; but he condemns the use of fomentations and poultices, and dissuades their being opened with a lancet, even after matter is formed. The application which he has found most useful to scrophulous sores, is that of linen cloths wetted with cold water, so frequently changed as to prevent their being glued to the sore. And he concludes, with observing, that he has seen more benefit from cold bathing, than from any other remedy whatever.

After treating of syphilis and scurvy, Dr Cullen concludes this volume, with some observations on jaundice. The obstructed excretion of bile, which produces the principal symptoms of this disease, may arise, he thinks, either from calculi, from spasm, or from tumours compressing the ductus communis choledocus. When such obstructions happen, the secreted bile must, he observes, be accumulated in the biliary ducts, and from thence, be either absorbed and carried by the lymphatics into the blood-vessels, or regurgitate in the ducts themselves, and pass from them into the ascending cava.

D 4

When
When the disease depends on tumours, it is, he thinks, to be considered as incurable; and it is almost only when it is occasioned by biliary concretions, that we can expect relief from medicine. In some instances of this kind, accompanied with tolerable vigour and much pain, blood-letting may be necessary. But there is no means of pushing forward a biliary concretion more probable than the action of vomiting. Purgatives, though frequently employed, can never, he thinks, be proper, excepting where there is a flow and bound belly. Opium, as removing spasmodic constrictions retaining calculi, is often, he thinks, of great service. The employment of soap in this disease, he considers as a frivolous attempt; and he concludes, with observing, that although it were much to be wished, that a solvent of biliary concretions, which might be applied to them in the gall-bladder or biliary ducts were discovered, yet none such, as far as he knows, has yet been found.
III.

_Histoire de divers accidens graves, occasionnés par les miafoles d’animaux en putrefaction, et de la nouvelle methode de traitement qui a été employé avec succés dans cette circonstance._ Par M. de Laffone. _Vide Histoire de la Societé Royale de Médecine. Tom. 1. 4to._ Paris.

The influence of putrid effluvia on the human system, has of late been the subject of much controversy. And among those admitting their pernicious effects, there have been many different opinions as to their mode of acting. It is alone by proper attention to facts, accurately related, that these controversies can be settled in a satisfactory manner. With this view, the paper now before us, claims our attention. But, besides this, it contains several particulars, deserving the notice, not only of the medical practitioner, but of the civil magistrate also, as the guardian of public police.
Mr De Laffone sets out with observing, that, in Paris and its environs, in the year 1749, there prevailed an epidemic disease among cattle, by which great numbers of them died. A particular field was allotted, in which all the carcases of the cattle dying of this affection in the neighbourhood of St Germain should be buried; and the police very properly ordered, that the pits into which they were thrown should be of considerable depth. But this regulation was not fully complied with, the dead bodies of the animals being covered only with a few feet of earth. Putrid effluvia did not fail to arise from thence, and to be diffused in the atmosphere. And the air respired in the neighbourhood, particularly in the house de l’Enfant Jésus, on account of its proximity, was very much infected. Mr de Laffone, who had frequent occasion to be in that building, was constantly struck with a very disagreeable smell, and, upon inquiry, he discovered it to arise from this cause. He soon conjectured that this was the origin of the diseases which daily occurred there. Of this, he thinks, there could be no doubt, since the disease to be described was entirely confined to the neighbourhood
bourhood of the place where the putrefaction of the dead animals was going on.

The disease which arose from this cause began at first in a manner but little alarming; soon, however, it put on the decided character of malignity.

About the beginning of the winter 1749, thirty young women, at least, in the house de l' Enfant Jésus, besides other persons in the same building, complained of violent colic pains, which were followed by tenesmus and a dysenteric flux. The greater part of them had, at the same time, an affection of the throat, with swelling of the amygdalæ. Aphthæ appeared in the mouth and under the tongue; but the throat did not acquire any livid cast, nor were there any symptoms of gangrene. Some of the patients were subjected to a singular appearance. Between the evening and morning, there occurred a considerable swelling of one or other hypochondrium, with tension and pain. There appeared also, on different parts of the surface of the body, spots, sometimes of a red, verging to livid, with swelling, and an insensibility of the skin, sometimes of a florid red, with pain, heat and tension.

The
The remedies commonly employed in dysentery diminished this affection, but, after the most careful repetition, were not sufficient for overcoming it. Sedatives prepared with opium were always necessary for the cure. A nun of the house, attacked later than the rest with the dysentery and sore throat, had symptoms much more severe than the others, and she died from the development of the gangrenous affection in the common mass of fluids.

About the end of the same year, one of the females who had been subjected to the dysenteric affection already described, was again taken ill, with violent fever, severe headach, and great inclination to vomiting. Two blood-lettings, and a large discharge procured by an emetic, appeared somewhat to relieve her. But the night following, her symptoms became much more alarming. Her pulse became feeble and irregular, her respiration constrained, and her head confused; her extremities became cold, and there occurred frequent serous and black coloured stools. In a few days, the prostration of strength became so great, that cordials became necessary. Blisters applied to the nape of the neck, and legs, drew off only a small quantity
tity of scrofity, and suppuration did not follow. The patient, in the mean time, complained of a pretty smart pain deep in the throat, deglutition became painful, and the palate and fauces assumed a brown or livid colour. Antiseptic gargarisms, fumigations, camphor and acids, could not suspend the rapid progress of the affection. Homberg’s sedative salt given in a pretty large dose only quieted the urgent symptoms for a few seconds. The whole surface of the body soon assumed a yellowish and livid tinge, which was the forerunner of death.

After relating these unfortunate cases, Mr de Laffone subjoins a third history, the case of a female in the same house, where every alarming symptom took place to a very high degree. There, as he saw every mark of approaching death, and had no expectation of saving his patient by the remedies formerly employed, he had recourse to the Peruvian bark. He employed it at first under the form of extract, but he found that it would not sit upon his patient’s stomach, although conjoined with a proportion of the mineral anodyne liquor of Hoffman. He had then recourse to a strong decoction of it, thrown up under the form of injection, every third hour.
From the second of these injections, the pains of the bowels and vomiting began sensibly to diminish, and the patient had some rest. The following ones changed very much the appearance of the stools, and, in a few days, the vomiting and pain ceased, the livid spots disappeared, and she had, at intervals, several hours of quiet sleep.

From the continuance of this course of bark-injections, though not afterwards at so regular periods, the confusion of head went off, the tongue became white and moist, the affection of the throat gradually diminished, and it was covered with a quantity of viscid glairy matter, which it became necessary to remove four or five times every day by a pencil of fringed linen. When the vomiting ceased, the patient was directed to use, by way of diet, the crust of bread boiled in water and almond emulsion, which, in her situation, Mr Laffone reckoned preferable to animal broth. When the simple injections of the decoction of bark did not produce an evacuation, a small quantity of almond oil was added to them, which rendered them more laxative. And, after every discharge, the patient's strength was supported by a small spoonful
spoonful of Spanish wine. From persisting in this plan, the pulse gathered strength; and, by the twentieth day of the disease, it was even full. At this period, the countenance became florid, and the skin very hot; these were the preludes of a profuse sweat, which continued for several days, and which put the patient in a train of perfect recovery.

Struck with the success of this method, Mr de Laffone followed it with many others, and he did not afterwards lose any patient affected with this putrid fever. But he had now recourse to the Peruvian bark-injections, after general remedies, from the very beginning of the disease. The evacuations, which were serous and black, became soon of a better appearance, the affection of the throat speedily ceased, and the gangrenous tendency never shewed itself.

As the magistrate of the police, after the representations which were made to him, had given positive orders to cover over with lime, and a great quantity of new earth, the places where the cattle had been buried, the infection of the air, in a short time, was not perceptible, and the disease, which these putrid miasmata had unquestionably produced, likewise ceased, and did not again appear.

IV.
SEYNE or Sedena, a small town in Provence, is, according to Mr Baffignot, the theatre of a very peculiar disease, which attacks almost all the new born infants at that place. Some authors have spoken of it under the name of **crinons** or **comedons**; but it is known by the people of the country under the name of **cées**, a corruption of **ceddes**, a provincial term which signifies a bristle. It sometimes manifests itself within the space of twelve hours, sometimes, however, not till the end of fifteen days, or even a month. And examples of it have occurred, we are told, even at twelve years of age, or upwards. But these are extremely rare.
The symptoms by which this disease is known, are a very considerable itching, which is augmented by the heat of the bed, and prevents the infant from sleeping; a perpetual agitation; an inability to suck, the child's tongue not being able to accommodate itself to the nipple; and, at last, the noise of its cries being diminished, which become hoarse, and are indeed almost extinguished. This last sign appears to be the most certain; and they in general judge of the severity of the disease by the degree to which the voice is extinguished, and by the weakness of the cries of the infant.

When, by these signs, the disease is known to be present, they proceed immediately to the cure. This consists in frictions, which are performed by the women of the country, and who are so much in the habit of treating this disease, that they do not in general call in the aid of any medical practitioner. These frictions are performed on different parts of the body, according to the state of the disease that is present. And they distinguish these stages of it, which are sometimes very distinct, sometimes united.

In the first, the diminution of the noise in crying is conjoined with a total incapability of sucking.
ing. This requires friction at the upper part of the sternum, on the fore and back parts of the neck, on the cheeks towards the angle of the inferior jaw, and on the temples. In the second state of the disease, the infant still enjoys a certain facility in moving the tongue, without, however, being able properly to seize the nipple; when the arms are set at liberty they are extended, the fingers are spread out with a considerable degree of tension, or the hand is firmly clenched. This state requires friction of the fore-arm, from the shoulder to the wrist. The third stage is distinguished merely by a diminution of the cries; then frictions are directed to the arms, the shoulders, the back, and even to the calves of the legs; which probably, as well as the hands, demonstrate the existence of crinons in these parts, by some particular movement, but which has not yet been sufficiently attended to.

To illustrate the mode of friction, Mr Baffignot describes the treatment of an infant subjected to the disease in its second stage. Then the most experienced women take the arm, and making choice of a particular part, such, for example, as the extensor muscles, they rub it with
the hand, which has before been moistened with saliva, till they feel such a roughness as is discoverable on passing the hand over the face of a man who has not been shaved for some time. They then quit that arm, to apply friction to the other in the same manner; that is, describing small circles, and turning always in the same direction, which they observe with great scrupulousness. These two frictions being performed, they present the breast to the infant, and afterwards lay it to rest. If, on the first cries which it gives, four or five hours after this, its voice be not restored, frictions are applied anew to the two arms and to the shoulders. If these do not produce the desired effect, frictions are used to the back, the loins, the limbs, and every part of the body in succession; interposing, however, twelve hours between each friction. It is but rarely that the child cries during this operation; on the contrary, from the tranquillity which it enjoys, there is reason to believe that it takes pleasure in the friction, and derives relief from it.

Nothing particular is remarked in the skin before the friction. These women, however, who are most accustomed to it, discover a kind of tension
tension which yields to the friction, and the coming out of hairs, without which all the frictions would be fruitless. If this does not take place, the voice is not restored, and the infant either perishes by convulsions, or falls into a marasmus with diarrhoea. There have, however, we are told, been cases where convulsions and diarrhoea have occurred at the same time with the diminution of voice, and where all these affections have disappeared by the aid of frictions alone.

The coming out of the crinons is observed in two ways; in some they remark a kind of hair, more or less black and rough, the length of which does not exceed the tenth of an inch; in others there appear red hairs, remarkably fine, not so rough to the touch as the former, and have, at their extremity, a small round bulb. As soon as these hairs have begun to disengage themselves, the disease is terminated; and, of themselves, they fall off in the space of about twenty-four hours, or from that to forty hours.

Although an infant has been subjected to frictions a short time after birth, and although these frictions have been attended with the desired
fired effect, yet it is not certain that it will not be necessary to have recourse to them in the sequel, because this disease returns at different ages; such returns particularly happen with some on the appearance of the first teeth, and with others when they are two or three years of age.

Mr. Bassignot concludes this paper with observing, that although, in most cases, the frictions are successful, yet this is not universal. A woman who had lost three children by the crinons, notwithstanding frictions, was safely delivered of a fourth, in whom unequivocal signs of the disease soon appeared. In place of trying frictions, it was covered with a paste made of flour and water, with the yolks of eggs, and a little salt. This application succeeded, and the disease was perfectly cured.
V.


In the memoir before us, Mr Bucquet sets out with observing, that the different methods which have been proposed for restoring to life persons apparently suffocated, appear to be very opposite to each other, although alleged to be founded on experience. Nothing, therefore, he thinks, appears more proper to clear up this matter, than multiplying researches of this same kind. With this view, he has performed a great number of experiments, and in presence of several illustrious and eminent men. With the result of these we are presented in the paper before us.

In
In these experiments, Mr Bucquet tells us he put to death about two hundred animals, consisting of quadrupeds, birds, and frogs. In these, his objects, we are told, were, 

1st, To examine the symptoms to which the animals were subjected from the time of their being plunged into a mephitic fluid, to the instant of their death. 

2dly, To consider in the dead bodies the state of the different visceræ, and particularly of those which are subservient to circulation and respiration. 

3dly, To determine the ultimate degree of affection to which an animal could arrive, while there yet subsisted hopes of the recovery of life. And, lastly, To determine the most expeditious and efficacious means of restoring the power of sensation and motion.

He first relates a variety of experiments which he made with the acid gas of chalk; he next proceeds to recount those which were made with air infected with the vapour of charcoal; and he concludes with relating the experiments which he made with inflammable gas. Without entering into the detail, we shall here present our readers with the general conclusions which he has drawn from his experiments.
All the aëriform fluids, he observes, do not act in the same manner. The acid gas of chalk occasions an obstruction of the blood in the pulmonary artery, in the right ventricle of the heart, and in the vena cava. From this, he thinks, are to be explained, the difficulty of respiration, the apoplectic affections, the nausea, the vomiting, and all the symptoms which appear both in men and animals, when suffocated with this gas. The vapour of charcoal, he observes, produces similar effects, but with much less energy, because it is always mixed with a certain quantity of respirable air. Inflammable gas occasions much the same accidents; but it has farther an action altogether peculiar on the nervous system, as is demonstrated by the violent convulsions, and even by the tetanus to which animals are subjected, when plunged into it.

All animals, he remarks, are not affected in the same manner, by the different gases. This had before been proved by the experiments of Messrs Priestley, Bergman, Sage, and several others. They had observed, that animals accustomed to breathe pure air, perish sooner in mephitic fluids, than other animals; that quadru-
peds, which habitually respire an air charged with exhalations, subsist for a longer time in the different gasses, and particularly in air infected by the vapour of charcoal. To these experiments of Dr Priestley, Mr Bucquet adds, that the most sensible animals, and those consequently which are the most easily suffocated, are also the most easily revived; while they likewise feel least afterwards from the suffocation to which they have been subjected, provided assistance be given them in due time.

Though mephitic gas, he observes, possesses the fluidity, the compressibility, the elasticity, and all the other properties apparent in air, yet these fluids do not appear to be fitted to penetrate into the lungs, and to distend their vesicles. For animals plunged into the different gasses, make continual efforts to inspire, but without being able to accomplish that end. Their lungs, though very much filled with blood, are much less voluminous than those of animals who do not die of suffocation. And it appears to our author, that the mephitic gas does not penetrate into the lungs, because their sensibility prevents its entrance.

Suffocation
Suffocation being always produced, according to Mr Bucquet, by the accumulation of blood in the lungs, air is the best, nay, he thinks, the only remedy we can employ against this malady, because no other substance can distend the pulmonary vesicles, and renew circulation. For giving assistance therefore to persons that are suffocated, we ought to begin by exposing them to free air. If the lungs still continue to exert their function, this alone will be sufficient for recovery. But if the circulation be very feeble, and respiration difficult, we must attempt to recruit their force, by the aid of stimulants, and such other means as are proper to revive in the heart and vessels the irritability almost extinguished.

All the stimulants, however, are not to be employed promiscuously; and to know in what order it is proper to administer them, our author thinks suffocation may be divided into three different degrees.

In the first, respiration distinctly continues, the circulation, though constrained, is still felt; and the patient is able to swallow. The best stimulants in this case are active cordials taken into the stomach; such as simple or camphora-
ted aqua vitæ, Hungary water, and all the o-
ther spirituous waters of the same kind.

In the second stage of suffocation, the pulse is
with difficulty felt, and respiration hardly per-
ceptible, while it is impossible for the patient to
swallow any thing. We must then, he observes,
have recourse to stimulants of a volatile and o-
dorous nature, applied to the nose. The best
remedies of this kind are simple or aromatic vi-
negar, falt of vinegar, or the like. These reme-
dies, he tells us, have the double advantage, of
restoring sensibility, and at the same time pos-
seffing a durable cordial and tonic power. But
they cannot, he observes, exert any action, un-
less the odour penetrates into the nose; that
is, unless there remain some degree of respiration.

In the third degree of suffocation, the pulse is
no longer to be felt, and respiration has entire-
ly ceased. For restoring them in such cases,
we must therefore employ such articles as can
carry themselves to the membrane of the nose
and throat. Of this kind, our author tells us,
he has found nothing succeed better than the
fuming spirit of sea salt, or the volatile spirit of
sulphur. He even prefers the last, because it
can be most readily had, and administered with the greatest ease. It is only necessary to put sulphur in powder on a tile, to kindle it, and to direct the vapour into the nose of the person suffocated, by means of a glass funnel. This volatile spirit of sulphur, however, while it is very penetrating, is also, he admits, very suffocating; and in its application, precaution is necessary. But as soon as the sulphureous vapour has penetrated into the nose or throat of the person suffocated, it produces a lively irritation, which occasions motion more or less sensible. The smallest particle of acid that penetrates to the lungs occasions a cough, which more powerfully renews circulation than any other means. As soon, therefore, as the suffocated person shews any motion, he must be turned from the fumes of the sulphur, and left to inspire pure air. The application of the sulphureous acid is to be repeated three or four times in this manner; after which recourse is to be had to the vegetable acids, which are more of a cordial and tonic nature.

The volatile alkali, our author remarks, is a remedy which has been much extolled in such cases; and the chemists have recommend-
ed it on the idea, that it will saturate the mephitic gas which is acid. But our author thinks, that for the recovery of persons in this state, it is not at all necessary to destroy the acid, since acids certainly recover them. Besides, the volatile alkali cannot possibly act in this manner against inflammable gas, which has nothing acid in it. It is therefore, he thinks, only as a stimulant that we can prescribe the alkali; and with this intention, he considers it as less powerful than the spirit of sulphur. He looks upon it as suited only to the second stage of suffocation, where respiration, *viz.* manifestly continues; and even there he considers it as less useful than the vinegar; for he affirms, that the one has the effect of afterwards weakening, the other of strengthening the system.
VI.

Recherches sur la maladie convulsive epidemique
attribue par quelques observateurs a l'Ergot, et
confondee avec la gangrene seche de Solognots.
Par M. Saillant. Vide Histoire de la Societe

In the memoir before us, the author sets out
with observing, that the experiments under-
taken by the Society, to determine whether the
ergot rye be capable of producing dry gangrene,
or not, agreed with the observations of Langi-
us, Perrault, Dodart, and others; but that, on
the other hand, there are many respectable autho-
rities which exculpate the ergot or spurred rye,
and refer to other causes the disease which has
been attributed to it in Germany and Sweden.
To clear up this matter, Mr Saillant has compared
together the authors who have written upon the
subject. He finds, that they do not agree with
regard to the cause of the disease; but that its
progress and symptoms are essentially different
from those of the dry gangrene. To prove this,
in the paper before us, he gives a detail of the symptoms of each of these diseases; and to this he subjoins an historical view of the progress of the convulsive epidemic of Sweden and Germany, the cause of which is not yet entirely determined.

The dry gangrene is characterized, he observes, by the mortification of some one of the extremities, sometimes all of them. Often it is preceded by a redness, which, however, is not inflammatory, and by some vesications. The limb swells, becomes painful, and has a sensation sometimes of cold, more frequently of unsupportable heat. The vessels are obliterated, the phlegm becomes black and hard, and the patient, at the point of death, is happy, if, from a spontaneous separation of the gangrenous part, he can survive, with the loss of his extremities. The first symptoms of this disease are not alarming. The pulse continues for some time nearly in the natural state, and is gradually weakened, in proportion to the violence of the disease. The blood appears black and thick, and the urine in a natural condition. The belly is hard and tense, but the appetite continues, and digestion goes on as in health; it is only towards the end of the disease, and even on the approach of
of death, that diarrhoea usually comes on. After death, on the examination of the body, the intestines, and other viscera, are often found strewed over with gangrenous spots.

The cure of this disease is sometimes accomplished in the beginning, by profuse sweats, and by a good diet. The medical treatment consists in evacuating the primæ viæ, in giving internally laxative aposems, diuretics and antifeptics, while recourse is had externally to those topical applications which are proper for resisting gangrene, for favouring the separation of the diseased part, without amputation, and for aiding suppuration.

After this description of the dry gangrene, he next proceeds to give an account of the convulsive epidemic affection which has been confounded with it. In that disease, there is not, he observes, any gangrene. The violent convulsions are its essential characteristic. It has no regular course, but returns by paroxysms; and while it is in reality less dangerous than the former disease, it yet makes its attack with much more alarming appearances. The patient at one time feels as if he were burnt with devouring fire, and soon after is sensible of cold, similar
lar to what arises from the application of water. These symptoms are accompanied with loss of appetite, nausea and vomiting, which are soon succeeded by an inexpressible pain. The patient, without shedding tears, utters lamentable cries, and the affected members are either contracted with extreme violence, or remain stretched out with inflexible rigidity. The pains soon abate, when the patient is able to stretch the contracted membranes, or to bend those that have been stretched; but they return in a fresh accession, with the same severity. The patient is no sooner out of the fit, than he is tormented with a voracious appetite; and he digests with sufficient ease, all sorts of aliment. In particular years, there succeeds swelling of the feet or hands, and the fingers have been covered with vesicles full of serosity, the discharge of which, however, does not procure any relief.

The disease, after several accessions, terminates itself by sweat or diarrhoea, which is more violent when patients eat little, than when they eat a great deal. But, for the most part, there remains, for the space of some weeks, several inconveniencies, such as vertigo, tinnitus aurium, deafness, loss or diminution of sight, or the like.
If the affection continues long, it degenerates into epilepsy; and if during the affection, there shall occur a mental disorder, it in general continues for life. If there occurs an obstruction of the liver, there in general supervenes a spitting of blood, sometimes followed by phthisis, by epilepsy, palsy, or in fine, by apoplexy. This disease attacks most frequently those who are plethoric, and in that case the convulsions are the most violent. But those of the phlegmatic temperament are most subject to comatose affections after it.

Some have observed blood issue from the nose and mouth after death; but they have not observed any alteration in the viscera, excepting that the lungs were much inflated and distended with blood. In other cases, the liver and gall-bladder have been much distended with bile, and an erysipelatous inflammation has been observed over the whole surface of the abdominal, and even the thoracic viscera.

Antispasmodics, he tells us, joined to diaphoretics, appear to be the only remedies useful against this disease. Narcotics have seemed only to aggravate the affection. But bleeding and purgatives have been employed with some advantage.
vantage in the beginning of the disease, according to the circumstances and temperament of the patient.

After this account, of the symptoms attending each of these diseases, and of the difference in the method of treatment, Mr Saillant next proceeds to give an historical account of the different periods at which the convulsive epidemic has manifested itself. He begins with mentioning its occurrence in Westphalia in the year 1597, which he considers as its first appearance in Europe; and concludes with the epidemic in Sweden in 1754, of which an account was published by Linnaeus, in his Amoenitates Academiae, who treats of it under the title of ropania, from the idea, that it was occasioned by the raphanistrum or charlock growing among the barley.
Opium is well known to be one of the most powerful remedies which a physician can employ, in the treatment of a great number of diseases. The quality which it has, of alleviating the most acute and obstinate pains, has long established its reputation. It was much celebrated, even in the days of Dioscorides. Sylvius de la Boe used it so frequently, that he got the name of Doctor Opiatus. And Sydenham is well known to have employed it very often with the greatest success. But, on the other hand, several illustrious physicians, Galen, Fernellius and others, have very much doubted the effects of opium, and even considered it as a poison. They have accused it of diminishing sensibility, and benumbing the whole nervous system; but, above all, they accuse it of suspending or stopping
ping a salutary crisis in disease. From these circumstances, Mr Bucquet observes, that even at present, it is not but in cases of urgent necessity, and even with some degree of regret and tremor, that the best practitioners in France venture to employ it.

Several chemists, he observes, have laboured the subject of opium, and have endeavoured to moderate its action, and diminish its effects, either by toasting or by fermenting it, by adding to it acid or alkaline salts, or by endeavouring to separate the active principles which enter its composition by the aid of proper menstrua. But these different modes of correction have, in general, at least been productive of but little benefit. This, Mr Bucquet is inclined to think, has proceeded from the principles of which it consists being but little known. And with regard to these, different opinions have been entertained. M. Geoffroy considers it as a gummi-resin, composed of oil and salts, a great proportion of which dissolves in water, and a small quantity in spirit of wine. He, however, admits also a considerable quantity of pretended sulphur, which, though coarse, he supposes to be highly expansible. M. Lemery again considers opium
opium as composed of a spirituous part, soluble in water, and of a resinous terrestrial part, soluble only in spirit of wine. And lastly, Mr. Cartheuser considers it as a gummi-resin, containing a virulent principle, which is very mobile. He observes, that this substance is more readily soluble in spirit of wine, than in water, since the spirit of wine applied to it dissolves about three-fourths of it, while water dissolves only one half. M. Cartheuser farther observes, that the odorous and virulent principle has a preferable attachment to the resinous matter, which is not soluble but by spirit of wine. And experience has shewn, that a very small dose of this resinous part, produces much more distinctly marked narcotic effects, than can be obtained from a much more considerable quantity of that portion of opium which water is capable of dissolving.

The researches of Mr. Baumé, our author observes, have led him to nearly the same conclusion with Mr. Cartheuser. From the experiments of Mr. Baumé, it is demonstrated, that opium is decomposed in preparing its extract by long digestion, the virulent part of it being dissipated with the lightest of the oil. The resin which
which was only suspended in the water, by means of the oil, is precipitated, so that the clear liquor holds nothing dissolved but an extractive part, which preserves nothing of the disagreeable odour peculiar to opium, but which still possesses a considerable part of its sedative virtue, without retaining any of its stupifying and delirious quality, since these reside only in the odorous and resinous matter separated by the operation.

These advantages, which there is reason to expect may be derived from the extract of opium, render it very desirable that it should be introduced into common use. But the preparation of it, in Mr. Baumé's manner, is very tedious, as it can hardly be made in less than the space of six months. These inconveniences led Mr. Bucquet to think of discovering some simple, easy and ready process for removing from opium its virulent quality, its oil and its resin, and thus preparing an extract similar to that which is prepared by long digestion.

As the result of repeated trials and experiments, he proposes the following simple mode of preparing it. After having grossly pounded any quantity of opium in a marble mortar, he pours
pours upon it, by little and little, water as cold as possible, and by the aid of gentle trituration, this water charges itself with what it can dissolve. When it becomes high coloured, he pours it off, and adds a fresh quantity of water, repeating it till the water does not acquire colour from the opium. The opium by this time has lost nearly one half of its weight, by the removal of the extractive part. The liquor is then to be filtrated and evaporated slowly, by which means the extract is obtained. The substance which remains in the mortar is a soft resinous matter, the whole of which is very nearly, although not entirely dissolved by the spirit of wine.

This resinous part of the opium preserves the whole virulent quality of the substance; and if it be distilled with a gentle heat, it gives over, for its first product, a fluid having a very strong smell of opium. Nay, distillation seems even to be a method of concentrating the narcotic quality of this substance. The watery extract distilled in the same manner, furnishes nothing similar; and the first product obtained, differs nothing from what is had on the distillation of any other extract.
Mr Bucquet concludes, with observing, that while this method of preparing the extract of opium is less tedious, and less expensive than digestion, the product which is obtained has the farther advantage of being always of the same strength. The cold water cannot take up any principles but those of which it is a solvent. While the hot water, uniting with those substances which it cannot keep in a state of perfect solution, must have these parts separated by art, an object which cannot be accomplished without difficulty, and always more or less imperfectly.
VIII.

Practical Observations on the most obstinate and inveterate Venereal Complaints. By F. Schwediauer, D. M.

In these observations, Dr Schwediauer endeavours to establish some new facts respecting the disease in general, and to point out several useful and necessary distinctions with regard to practice, which have hitherto escaped notice.

His first chapter contains observations on venereal infection, and on the different appearances of syphilitic complaints in general.

He begins with pointing out the symptoms by which a person is known to labour under a confirmed lues. With regard to the nature of the venereal infection, or the exact time when the virus produces its effects, he does not pretend to form any positive determination; but says, the generality of people feel the first symptoms of the disease betwixt the second and sixth day after
an impure coitus; he has often seen chancrees appear in the space of twelve hours, or less; while, on the other hand, he gives instances of the disease not making its appearance for weeks, months, nay years. With regard to the manner of attack in different persons, this, he thinks, depends on the particular idiosyncrasy; hence it makes its appearance in some, in the throat; in others, on the skin or bones. Those who have been once affected, he alleges, are more liable to catch the contagion again. As to the time when the malady made its first appearance, he thinks there is room to doubt. Although there be no positive proof of its existence among the ancient Greeks and Romans, he thinks it remarkable that Celsus, de obscœnarum partium vitiiis, describes affections very similar to those attending the venereal disease.

He thinks it a question, whether the venereal poison can be absorbed into the system without a previous affection of the genitals, or some other parts of the surface of the body. He tells us, he never saw one instance of a person affected with the disease, for the first time, without some previous appearance either of a running, or a venereal ulcer, in some one part or other of
of the body, especially of the genitals, although he has been told, by some eminent physicians, of buboes arising without any previous running or ulceration.

It has been said, that a person may be infected by lying in the same bed with, or after an affected person; but, from experiments made, he never could find this to be the case. He says, it is equally a matter of doubt with him, whether the venereal poison affects any fluid of the body besides the mucous and lymphatic systems; hence he is in doubt whether a child can be affected with a nurse’s milk, unless there is a previous ulceration about the nipple; and it is also a matter of uncertainty, whether the disease is ever conveyed from an infected father or mother, by coition, to the future foetus, provided their genitals be found, or whether a child is ever affected in the uterus of a diseased mother. He says, he has never yet met with an authentic observation of any child being born with venereal ulcers, and that such symptoms of the disease as appeared some days after birth, may be supposed to arise from infection received in its passage, from ulcers in the vagina of the mother, the skin of the infant being at that time
as tender as the parts not covered with ticle.

He next enumerates the different ways the venereal disease may be communicated from one person to another.

He concludes the chapter, by observing, that the virulence of the venereal disease in former times was not owing to the greater malignity of the disease, but to the constitution of the times, as people are not now looked upon with that detestation, when labouring under this disease, they were formerly; as the poorer people have hospitals and dispensaries to apply to for relief; and as the physicians and surgeons do not think themselves authorised to reproach their venereal patients in a rude and inhuman manner, or deny them proper aid; and he thinks that the frequency and violence of the venereal disease will be diminished exactly in proportion to the degree in which learning is encouraged by government, and liberal principles thus diffused among the people.

In his second chapter, he treats of the virulent gonorrhœa, which term he contends is not a proper one, as it conveys an erroneous idea of the disease being a compound made up of the Greek
Greek words γον, semen, and γεο, fluo, i. e. fluxus feminis, which he contends never takes place in this disorder; he would therefore term the disorder blenorrhagia, from βλενθ, mucus, and γεο, fluo, i. e. mucifluxus (activus), to distinguish it both from the real gonorrhœa and gleets. To gleets he applies the term blenorrhœa, mucifluxus (paffivus), being without phlogistic diathesis. In Britain, the disease is called the clap; in Germany, a tripper; and, in France, a chaudepisse, from the particular symptoms attending the disease. He defines the virulent blenorrhagia or clap, a local inflammation, with a discharge of puriform matter from the urethra in men, and vagina in women; but the disease, by the violence of the irritation, is sometimes not attended with any running, the secretion of mucus seeming totally suspended, yet all the other symptoms rage with the utmost violence; in this case, the disease has very improperly got the name of gonorrhœa sicca, as if we were to say, fluxus feminis sine fluxu.

He contends, that the distemper being a local inflammation, seldom affects the whole system, and that the discharge, though it has a purulent appearance, is not real pus, much less semen,
but merely the mucus of the part secreted in larger quantity, and changed in its colour and consistence by the stimulus applied to the part, analogous to what we see happens in a common coryza. This is the reason why he gives the discharge the name only of puriform.

He holds it to be an erroneous notion, that it always arises from an ulcer in the part; and he affirms, that, in ninety-nine cases of a hundred, no such ulcer takes place. Dr Stoll, professor of physic at Vienna, has, he thinks, made this matter perfectly evident. On opening the urethra of two persons who died while labouring under a virulent blenorrhagia, he found the internal surface preternaturally red, and the puriform matter oozing out from the internal membrane, especially at the lacunæ, where the seat of the disorder was, without the smallest appearance of ulceration, or even excoriatio. He proves, by a direct experiment made upon himself, that a similar discharge may proceed from any sufficient stimulus applied to the parts; hence he is of opinion, that, when the disease arises from an external cause, it is actually excited from the application of the stimulus to the cavity of the urethra itself, and that the virulent matter
matter in coition enters the urethra; and that the disease does not arise, as many suppose, from the matter being absorbed by the lymphatics of the penis, and then deposited at the lacunæ of the frænum; if such absorption actually took place, the affection, he thinks, would oftener be seated lower down, which it hardly is in any case, unless by mismanagement, till late in the disease.

He endeavours to prove, both from well established principles, and practical observations, that virulent blenorrhagia not only may, but most frequently does arise from the same venereal poison which, when applied to other parts of the body, produces chancres, and other symptoms of the lues, and attempts to state, and to answer the various arguments by which the contrary doctrine has been supported.

If, It has been said, that the poison which produces virulent blenorrhagia does never, like that of chancres, produce any venereal symptoms in the mafs, or the lues itself. To this he answers, that though the blenorrhagia seldom produces lues, yet we are not to look upon this as universally true, in most cases, a superficial inflammation being only raised on the internal membrane
membrane of the urethra, without any ulceration, no absorption takes place, the poison being out of the course of the circulation; but, in the course of his book, he adduces a variety of instances where he thinks unequivocal symptoms of lues were produced from the injudicious treatment of blenorragia, or where the disease was accompanied with an ulcer in the urethra. The reason he assigns why the virus does not so commonly produce an ulceration of the urethra, as on the glans, and other external parts, is that the quantity of mucus secreted there, envelops the virus, and prevents those effects which are the consequence of its action on parts not equally well covered with mucus. And he adduces instances where the stimulus has been so strong as to occasion an entire suppression of the discharge of mucus, arising from the imprudent use of injections, and from other causes of which an ulceration has been the consequence, and that followed by syphilis. At the same time he remarks, that the virus lodged on the glans, instead of producing chancrese, often occasions a flow of mucus. This species of the disease has been termed gonorrhœa spuria, but he thinks would be better termed blenor-
rhagia balani, *i.e.* an active discharge from the glans or corona glandis. In this case no symptoms of lues succeeded, any more than in the common virulent blenorrhagia.

2dly, It is mentioned, that, as the poison of the blenorrhagia never produces chancres, so that of chancres never produces blenorrhagia.

With regard to this circumstance, he is of opinion, that too general conclusions have been drawn from a few random observations favourable to the above opinion; and he is convinced, from many cases he has examined, that chancres were communicated by persons affected with a simple blenorrhagia, and *vice versa*; but he contends, as still a more striking proof, that when a patient affected with blenorrhagia does not keep the glans and prepuce clean, chancres are often produced, the cause of which may be safely ascribed to the matter of the blenorrhagia: Hence we find the necessity of keeping the parts clean, and even of washing the fingers after handling a person with a running, as frequent instances have occurred of ulcers about the eyes and nose being produced from inattention to this circumstance; at the same time, he is convinced that no one will doubt, that matter taken from
a chancre, and applied to the urethra, will produce a blenorrhagia.

3dly, It is affirmed, that mercury never contributes to, or accelerates the cure of blenorrhagia, but that, on the contrary, every blenorrhagia may be, with certainty, cured without mercury, and without danger of the syphilis succeeding.

To this argument he replies, that it is a certain fact, that a great many blenorrhagias may be, and are cured without mercury; nay, in some cases without any medicine whatever. Nature, when irritated by the poison, will excite a greater secretion of mucus than usual, which may envelop, and, by the large discharge, carry it off altogether: Hence the practice of injecting sweet oil, or mucilaginous liquors, is only assisting nature in her operations. Besides, as he maintains that a blenorrhagia is a mere local complaint, out of the reach of circulation, mercury taken inwardly cannot have the least effect. But, though he allows that simple blenorrhagia may be cured without mercury, yet he thinks, that the cure of a blenorrhagia complicata, or attended with an ulcer, is not to be depended on without it. It is alleged, that mer-

G 2 cury
cury never shows any power in accelerating the cure of blenorrhagia.

To this he replies, that those who hold such an opinion not only confound the runnings which arise from venereal virus with those which are occasioned by other causes; but that they do not make a proper distinction between the internal use of mercury, and the topical application of it. He affirms, that though mercury internally be of little use in the cure of simple blenorrhagia, yet, that mucilaginous injections, combined with mild mercurial preparations, are the safest, speediest, and best method of curing the disease.

Lastly, It is said, that blenorrhagia never leaves the syphilis behind.

In simple blenorrhagia, he observes, it is hardly possible for any absorption to take place; but, in the complicated, an absorption almost always does take place, as he has seen in many instances, where, from a scratch with the point of the syringe or catheter, the virus has been absorbed, and produced unequivocal syphilitic complaints, which yielded very readily to mercury. He therefore concludes there are some blenorrhagias which cannot be cured without mercury
mercury, while there are others which may be removed although it be not employed, and without any bad consequence ensuing. But though he maintains, that the virulent blenorrhagia proceeds from the same virus with that producing the lues, yet he is convinced, from experiments made on himself, and from observations made on others, that blenorrhagia is sometimes produced from other acrimonies or stimuli applied to the urethra, and has then nearly the same symptoms as attend the virulent blenorrhagia; and he is inclined to believe, that such complaints may be propagated as well as venereal ones. In confirmation of such a complaint existing, he remarks, that stone-horses and dogs are sometimes subject to a discharge having all the symptoms of a venereal blenorrhagia, as to colour, &c. but that it disappears in a few days without any application; and he is persuaded, that the same thing happens also to mankind from other causes, and especially by masturbation.

In order fully to ascertain whether other stimuli would produce complaints similar to those attending blenorrhagia, he injected a liquor made of six ounces of water impregnated with as much caustic
caustic alkali as gave it a very sharp fiery taste. On injecting this liquor, he pressed the urethra so that it could go no farther than what is supposed the common seat of virulent blenorrhagia. This injection gave him considerable pain, and in making water he had severe pain when the urine came to the part; in the course of the night, a large discharge of puriform matter, of the same greenish colour as attends blenorrhagia, came on, and continued for five days, becoming, in that time, of a deeper green, attended with every other symptom, as ardor urinæ, chordée, &c. Dr Olinger of Tubingen, he tells us, observed the same effect from the internal use of oil wrung from red Turkish yarn. Upon the whole, he concludes the following facts to be fully established: viz.

1st. That blenorrhagia frequently arises from the same venereal poison applied to the inside of the urethra, which, when applied to the glans, prepuce, &c. produces chancre; or, when absorbed into the system, forms the lues. And,

2dly, That there are blenorrhagias that owe their origin either to acrimonious substances introduced into the urethra ab extra, or, perhaps, sometimes to a more violent mechanical stimulus
lus arising during coition: Hence he divides the disease into two distinct species, *viz.* blenorrhagia syphilitica, and blenorrhagia, *ab acri vel stimulo mechanico*. Besides dividing the disease into these two species, he thinks it necessary to divide blenorrhagia syphilitica into simple and complicated, or that attended with an ulcer in the urethra.

How far our readers will be disposed to adopt all Dr Schwediauer’s reasoning on the subject we know not. And to enter further into the controversy, whether syphilis or blenorrhagia depend entirely on the same, or on different kinds of contagious matter, would be foreign to our present business. But we beg leave to refer those who wish to examine more fully the reasoning and arguments employed by those who contend for the opposite opinion, to Dr Duncan’s Medical Cases, where they will find this question treated at considerable length.

The Doctor finishes this part of his treatise with his methodus medendi in all cases of syphilitic blenorrhagia; and, as he endeavours to establish, that every kind of virulent blenorrhagia is a local complaint excited by a peculiar poison.
poison or stimulus, he lays down three indications of cure.

1st, To remove or destroy, if possible, the nature of the poison.

2dly, To defend the tender parts from its virulence.

3dly, To allay the irritation occasioned by it.

For answering all these different indications, he proposes oleous or mucilaginous injections combined with opium, and mild mercurials, along with the internal use of mucilaginous liquors; and where the inflammatory symptoms run high, an anodyne draught at night, which is peculiarly necessary for such patients as will not submit to the use of injections. These, with topical bleeding, and emolient sedative fomentations and poultices, will generally effect a cure; but where the habit is irritable, and the running thin and sharp, the Peruvian bark, along with opium, will produce the best effects. He finds the use of opium, either internally, or by way of clyster, the best means of removing painful erections; and these, he observes, may, in a great measure, be prevented, by tying down the penis, and lying on the side on a matress.
He always advices a suspensorium feroti from the very beginning of the disease, as a sure preventative of swelled testicles. He has always found neutral salts to be hurtful, by increasing the secretion of urine; and discommends all drastic purges, and even the frequent use of mild ones, as tending to occasion an absorption of the poison. By these means, he says, a simple virulent blennorrhagia is to be cured. But where it is complicated with an ulcer in the urethra, he thinks it necessary to join along with these, the internal use of mercury, or mercurial friction on the perineum and inside of the thighs. He next treats of gleets, which he defines to be a continued running, after the inflammatory symptoms of the virulent blennorrhagia have disappeared some time.

These, he alleges, arise from two different causes, which require a different method of cure. First, they may arise from a relaxation of the mouths of the vessels, owing to the preceding irritation; or, secondly, to an ulceration or erosion of some part of the urethra.

After pointing out the marks by which these two species may be distinguished, he proposes for the cure of the first, injections either of astringent
stringent substances, or of calomel suspended in a mucilaginous liquor, which, he says, will generally remove the complaint; but for the cure of the second, the same means are to be had recourse to, as in the cure of the syphilis itself.

In this place, the Doctor makes a few new and essential observations respecting injections in general. He says, the syringe should have a short wide pipe, sufficient to fill the orifice of the urethra; the patient should push the injection slowly into the passage, till he feels it gently dilated; and should retain it there for a minute or two; and do the same operation three or four times repeatedly, and three or four times a-day regularly. The injecting liquor in virulent blennorrhagia should be always lukewarm; but in gleets this is not necessary. In all cases of injection, the patient ought to endeavour to make water before, in order to wash off any matter lodged in the passage, and to keep the injection longer applied afterwards. Where an ulcer is lodged low down in the urethra, bougies, either with or without proper injections, will be of use. Where gleets prove obstinate, irritating injections, and likewise exercise, by raising a local inflammation, will often remove the complaint.
As to internal remedies, mercurials, balmatics and corroborants make the chief. The first are always necessary, where the whole system is affected. Balmatics, as balsam of capivi, and those of the turpentine kind, seem to act by raising a local irritation. Of the last, Peruvian bark, with wine or lime-water, with or without powerful astringents, is the most useful.

Gleets, he says, sometimes proceed from obstructions occasioned from ulcers in opposite sides of the urethra making adhesions, and forming columnae carneaæ across the passage.

He gives a particular caution, in cases of gleets which have their seat low down in the urethra, to examine with great care the prostate gland. Where it is found hard and swelled, a mercurial course, with extract of hemlock, and blisters applied to the perineum, have been found to produce the best effects.

Dr Schwediauer finishes this chapter with a nosological table, in which he ranks the disease under the general class of locales, the order of phlogosis dividing it into a number of genera, each of which he subdivides into several species.
He next proceeds to treat of the hernia humoralis, or swelled testicle. He lays it down as a new fact or observation, that this is never originally a swelling of the testicle itself, but only of the epididymis, and that it proceeds from an irritation of the mouths of the seminal ducts, without any deposition of the poison into the testicle. He therefore recommends a new method of treatment, recommending the free use of opium, with the constant employment of a truss-bag, to which emolient clysters and warm baths should be joined. But according to circumstances, bleedings should be premised. Where the disease proves obstinate, the patient is to be put into a warm bath, or over a perforated chair, have a large dose of opium, either by the mouth, or by way of clyster, and every means is to be used to bring back the running, if it be stopped. Where the epididymis becomes very hard and schirrous, mercury rubbed into the perinæum, with poultices of the roots of the atropa mandragora of Linnaeus, has been found useful.

He next treats of the inflammation and induration of the prostate gland, which he advises should be managed in the same manner as the swelled testicle.
In the sixth chapter, he treats of venereal ichury and strictures. The ichury he defines to be a total suppression of urine, either from the remains of former syphilitic complaints, or from a present venereal virus affecting the urethra or neck of the bladder. A partial suppression, he observes, may arise from different causes, of which a stricture or constriction of one particular part of the urethra is only a common one. Where the case is urgent, the bladder much distended, after using the common methods by an antiphlogistic regimen, the bladder must be evacuated by the catheter, about the application of which he makes many useful observations: when there is, as it often happens, difficulty of introducing the catheter, owing to a spasm taking place, from the irritation of the instrument, in this case, he advises to push it gently, till a resistance takes place, then to stop a little till the spasm goes off, when it will often be introduced with the greatest ease. Before introducing the catheter, he advises a laxative injection to be given, and after that an injection of equal parts of barley-water and lintseed-oil, with a full dose of tinctura thebaica, which should be repeated occasionally. At the same time the use of the warm
warm bath will be of great service in removing the complaint.

He mentions a case where, by the advice of an old woman, the application of a roasted onion to the perineum produced a plentiful flow of urine two hours after the application.

After producing a flow of urine, he advises the repeated application of the catheter, to prevent a return of the complaint. The catheters he commonly makes use of, are made of twist-ed gold-wire, covered with the elastic gum re-fin or caoutchouc.

If the urine cannot be discharged by the above means, the next resource is the operation.

After the discharge of urine is procured, he advises, if the lechuria arise from a retrofused blenorrhagia, to endeavour to bring back the running, which may often be effected by fitting over the stem of hot water and vinegar, and the application of emolient poultices to the genitals; but in all these cases the use of mercury is necessary for a radical cure.

In the following chapter, he next makes some observations on venereal ulcers and chancrest. In the treatment of these, he contends, that it
is of the utmost consequence, to distinguish the particular nature of the ulcers, viz. whether they are local, or owing to an universal affection; whether they are simply venereal, or complicated with scrophula, scorbustus, and the like; whether they arise from acrimony of the saliva, or other fluids secreted nigh the place where the ulcer is situated; or, such as were originally venereal, but have now changed their nature so far, that the use of mercury has a bad effect upon them.

Where the ulcer is merely local, it may be cured by topical applications; but when they are joined with, or proceed from an universal affection, to these must be joined mercury. When they have changed their nature, so that upon a trial of mercury we find they extend, or do not heal, astringent topical applications, with internal corroborants, are what he advises.

He finishes this chapter with a few observations on venereal fistulas. Here he advises to eradicate the venereal poison, before we attempt the operation, as any remains of that often occasions a return of the disease.
He next treats of phymosis and paraphymosis. In these complaints, he advises never to make incisions, without the most absolute necessity, as by the laying open a larger surface of open cuticle, the person is exposed to a greater absorption of the venereal virus. He therefore advises, rather to attempt the cure by injections, in the case of phymosis; and in the paraphymosis, he advises, as the most effectual means of reduction, the sprinkling of the glans with cold water, meanwhile endeavouring, with the fingers, to bring the prepuce forwards over the glans.

He next treats of buboes. These, he says, arise from two causes. One is, the irritation of the mouths of the lymphatics occasioning a swelling of the neighbouring gland; the other is, where the matter is deposited in the gland itself. The first he calls *sympathic*, the other *idiopathic*.

He is in doubt, whether buboes are ever formed from a deposition of venereal virus from the general mafs. He then enters into the consideration of the question, whether we ought to discuss a bubo or not? The result of this inquiry is a perfect satisfaction in the propriety of discussing, as he looks upon the doctrine of the whole
whole venereal virus being lodged in the bubo, or its becoming a channel by which it passes out of the body, to be erroneous, and that the body may be equally well freed from it by discussion, as by bringing the bubo to suppuration.

In discussing a bubo, he advises mercurial friction on the inside of the thigh, considerably lower down than the bubo, and by no means to rub the ointment on the surface of the bubo itself, as by the irritation raised from the friction, the bubo would be often brought to suppuration, instead of being discussed. At the same time, a mercurial plaster may be applied over the bubo, to prevent the bad effects of the rubbing of the clothes. During the time of resolution, the patient is to be kept on a strict antiphlogistic regimen.

In sympathetic buboes, nothing more is necessary, but to take off the irritation from the mouths of the lymphatics.

He remarks, that sometimes the bubo cannot be discussed. In this case, the treatment is to be regulated according to circumstances. If the patient is of a full habit of body, and the symptoms run high, an antiphlogistic regimen, with topical bleeding with leeches, will be a

Vol. IX. H means
means of bringing it to a more speedy and agreeable suppuration, than by high diet and stimulant applications. But where the symptoms run high, from an irritable system, then he admits of full diet, opium, with emolient and sedative applications. He condemns the use of mercury in both kinds of buboes; and, indeed, at any time during the inflammatory state of the disease. But he takes notice of a third kind of bubo, very different from the two former, such as happens in weak, relaxed, debilitated and cachectic patients, which will neither discuss, nor can it be easily brought to suppuration. In such cases, he advises mercury, along with Peruvian bark, full diet, and topical stimulant applications.

He advises the leaving the abscess to burst of its own accord; but if it proves tedious, he prefers caustic to any other method. The caustic he advises to be a small one, and never to be allowed to lie on above two or three hours at most. After the bubo is opened, he recommends the method of treatment commonly in use in such cases.

He next enters on the consideration of the syphilis, or venereal disease, commonly called the
the confirmed lues or pox. On this subject, he begins with enumerating the different symptoms that are apt to be produced by an absorption of the venereal virus into the mass, the general cure of which depends on the preparations of mercury. He lays down as a conjecture, that the nature of its action depends on a peculiar attractive power; or chemical affinity with the venereal poison with which it readily unites, and forms a compound or neutral differing from the qualities either of the mercury or venereal poison; hence as soon as that union takes place, and the poison is fully saturated, the effects of the virus in the body must cease, and the person be entirely cured. From this theory, he alleges, we might perhaps better account for a few grains of mercury relieving the most excruciating pains, and curing ulcers without any topical application.

For a fuller account of the operation and uses of mercury, he refers to Dr Duncan's observations on this subject, published at Edinburgh.

In the cure of the syphilis, he begins by directing a purgative to cleanse the bowels. He then puts his patient into a warm bath, rubbing him well down with a flesh-brush. He is then put to bed,
bed, after receiving a cupful of warm wine-whey. That evening, or next day, he begins to introduce the mercury into the system by friction, by rubbing on the inside of the thigh or leg; for half an hour, before the fire, a drachm of good mercurial ointment; after which he puts on a pair of flannel drawers, to keep the bed-linen clean. Before he employs a new friction, the part is to be well cleansed with soap and warm water; the friction may be done either by the person himself, or by another, with the hand covered with a glove made of soft bladder; the part is to be changed at every new friction. Whenever the least symptom of irritation or affection of the mouth takes place, the friction is to be left off for a day or two; it must then be renewed, and this course continued till the patient is radically cured; and it is even to be persisted in for a fortnight or three weeks after every symptom has disappeared. He allows his patients, during this course, a vegetable diet, mixed with animal food, and a proportion of wine or malt liquor. He wishes, if possible, for his patients to use the warm bath twice a-week, as he thinks thereby not only to prevent
prevent a salivation, but likewise to render the cure shorter.

He next proceeds to give a lift, and an analysis of the different mercurial preparations in use. The preparation which he prefers, is the unguentum mercuriale fortius for external use, when made of fresh lard or butter, without the addition of any turpentine, or any other matter, to render the mercury more easily extinguished. For internal use, one of the mildest preparations, he thinks, is the pulvis mercurius cinereus of the Edinburgh Pharmacopeia, a preparation introduced by Dr Black. Among other remarks on the mercurial preparations, he says, he is in doubt whether pure mercury, in its crude state, imparts any quality to simple water. He has observed, however, a dog cured of a most inveterate scab, by a decoction of this kind, when every thing else had failed. The table of mercurial preparations annexed to this chapter, contains a full and complete view of all the mercurial preparations and compositions hitherto known.

He next proceeds to consider, whether it is necessary to raise a salivation in the cure of a confirmed lues. The result of his observations on
on this subject is, that he looks upon a salivation to be no certain means of removing the disease radically; that when raised to a high degree, instead of curing the disease, it is very hurtful to the constitution; and that no solid arguments have been adduced to lead us to continue the use of it. He then enumerates the different means of preventing a salivation, when under a course of mercury.

1st, By a careful exhibition of mercury, both as to its preparation and dose.

2dly, By wearing a flannel shirt next the skin, avoiding cold, damp air, and keeping warm clothed in such weather.

3dly, By the repeated use of warm baths, and the internal use of diaphoretic and diuretic decoctions, along with the mercury.

4thly, By avoiding very hot rooms, and confined air, and covering the head and neck lightly, both by day and night.

5thly, By taking a dose of gentle physic now and then, and intermittently the use of the mercury as soon as the breath and teeth begin to be affected.

6thly, If the patient is not of a phlogistic diathesis, a full diet, with the moderate use of wine,
wine, rather than a low one, avoiding the smoking of tobacco, by such as use it, during the time they are under a mercurial course. When salivation runs high, he proposes to remove it by gentle laxatives, the warm bath and flesh-brush, and the internal use of sulphur; but if it be owing to weakness, a good nourishing diet, and astringent gargles, with proper caution, may be used, such as decoction of bark, with red wine; and, according to circumstances, with a portion of tincture of gum, lac, or myrrh.

He next proceeds to investigate the causes why venereal complaints do not always yield to mercury. He alleges it may be occasioned by a variety of circumstances, as from the crude mercury being impure, or the preparations badly conducted, or adulterated; he therefore advises every medical practitioner, who has his patient’s welfare at heart, to prepare his own medicines; or, it may be owing to the method of exhibiting the mercury either externally or internally; to the particular state of the patient; to irregularities committed by him; to the nature of the disease itself; to the mercury being given in too small quantity, or not for a sufficient length of time; to its being administered
in too large quantity, by which salivation, sweating, or purging are brought on; or, lastly, to its being mixed with other substances, by which it is rendered inefficacious.

He next proceeds to particular complaints that occur in the venereal disease, and require a peculiar treatment, as ophthalmia, deafness, sore throat, affections of the skin, excrescences of different kinds, as condylo mata, fici, warts, &c. venereal impotency, pains, spasms, and the like. In venereal ophthalmia, if the disease be owing to a retropulsed blepharagia, as he tells us he has observed several times, especially in cold climates, he proposes, along with the common antiphlogistic regimen, to scarify the coats of the eye, and, by every means whatever, to endeavour to bring back the running, even by inoculation, as the consequence of such ophthalmia is almost always a perfect loss of sight. The same cause, he observes, has produced total deafness, therefore the same means of bringing back the running is to be used here.

With regard to the venereal sore throat, he insists strenuously for a careful distinction of these from such as arise from scurvy, or from saliva.
COMMENTARIES. 121

Saliva rendered acrid by the use of mercury; but particularly, from those, though originally venereal, which have now changed their nature, and acquired a quite different character, as the cure of the venereal sore throat depends entirely on mercury, which would render the others worse.

With regard to complaints of the skin, besides the use of mercury, he recommends the warm bath, made of a decoction of bran, in every gallon of which he dissolves half a drachm of corrosive sublimate.

For venereal warts, and other excrescences, he has found Plenk's aqua caustica answer extremely well. Its composition is as follows:

R. Sp. vini rectif.
   Aceti vini, ana seculciam.
   Mercur. corros. sub.
   Aluminis.
   Camphora.
   Cerussae, ana semidrachmam.

This liquor applied once or twice a-day with a pencil, has, he says, removed them when nothing else would succeed.
Where venereal impotence proceeds from some of the virus lurking about the body, he recommends a proper course of mercury, and afterwards tonic medicines, with two tea spoonfuls of Hoffman's anodyne liquor evening and morning, and rubbing the spermatic cord and scrotum with the same. By this means, he says, he has often succeeded in removing the complaint.

He next makes a few remarks on venereal complaints, disguised under the appearance of other diseases, and on such as are incurable by mercury. These are to be distinguished by circumstances, and the treatment regulated according to the doctrines he has laid down in the different parts of his work.

Dr Schwediauer finishes this ingenious publication with a few observations on the prejudices that prevail about the venereal disease. It is, he says, believed by some, that, when once the disease has got into the system, it can never be fully eradicated; hence when any little disorder appears, it is always ascribed to the venereal virus still lurking in the body; others imagine they can never have the mercury thrown out of the
the body again; and a third set think the best way to get rid of a clap is by coition with one or more healthy women. All these prejudices being equally foolish, and the latter highly criminal, he advises the contrary to be strenuously insisted upon by the physician, so that their baneful effects may be prevented.

In these observations and experiments, Dr Pearson has been at great pains in investigating the nature and properties of the waters at Buxton; and, in several particulars, has thrown new light upon that subject.

He begins with a chronological account of these waters from the earliest period, investigates the nature of the foil in the neighbourhood, and the state of the atmosphere about the Peake of Derbyshire.

After this introduction, he proceeds to treat of the history of the chemical qualities of the tepid waters at Buxton.

He
He first considers its properties as immediately discoverable by the external senses. From this examination, he concludes, that it does not contain any impregnation evident to the external senses, excepting a permanent vapour in a very unusual form and quality; and that this permanent vapour is not gas or fixed air, as it has commonly been called; that if it be impregnated with other matters, it contains a smaller quantity of them than in common spring-waters; and that its heat exceeds that of the interior part of the earth, and of ordinary springs, which are of a temperature from 48 to 50 degrees, while this water is about 81°, and consequently feels rather tepid than otherwise.

It appears, he adds, that Buxton water does not differ considerably in specific gravity from various cold springs, when they are of the same temperature; in general, it is lighter, and always as light as these waters. But an equal bulk of Buxton water, immediately after being taken from the spring, weighs twenty grains in a pint less than cold spring-water. For this he assigns two reasons, the superior heat of the water, and the permanent vapour suspended in it.

To
To the vulgar, he observes, it is wonderful that springs of different qualities should be near each other; that a cold and warm water, a hard and soft water, a pure and a chalybeate spring, should be found within the compass of a few yards, as is the case at Buxton; but, to a person tolerably acquainted with the structure of the earth, these differences may be readily accounted for. Without such knowledge, however, he observes, they must be allowed to be rather extraordinary appearances.

He next examines this water by means of mixture, and, from a variety of experiments, he concludes, that the mixture of substances with the Buxton water instructs us that they contain no acid, excepting, perhaps, a small quantity of gas, and no alkali; that they are impregnated with vitriolic acid, combined with quicklime, forming vitriolic selenite; but whether united with other substances, these experiments do not make appear; that they contain muriatic acid, combined with some substance, but of what kind is not ascertained, and also calcareous earth; that it is extremely doubtful whether they have any metallic salt, but that, if they do contain any, it is iron, dissolved probably by vitriolic
triolic acid, certainly not by gas; and that they are impregnated with a permanent vapour, which is probably air, but not with any phlogistic matter.

The proportion of these substances dissolved in Buxton water, to each other, and to the water, doth not appear from these experiments by mixture; but, from the comparison generally made of the appearances on mixture with common spring-waters, he thinks it probable that they are not only the same substances, but in quantity not exceeding that which is contained in ordinary cold springs.

He concludes this part of his subject by endeavouring to discover, by means of heat, the properties of the Buxton water. In this way, he has made a very considerable number of experiments; and, from these, he thinks it appears that this tepid water contains about one sixty-fourth of its bulk of permanent vapour, or four ounces measure to four and a half of permanent vapour (measured when of the mean heat, and under a moderate pressure of the atmosphere) in sixteen pints of water, a part of which substance is air; but the kind of vapour with which this air is mixed was not evident, excepting
cepting that it was not gas, or any phlogistic vapour.

He found that Matlock water contained, in the quantity of sixteen pints, from three and a half to four ounces measure of vapour, which was found to be air.

He also found, that this quantity of common spring-water was impregnated with three and a half ounce measure of permanent vapour, which appeared to be air; that this air, he says, rather exceeded, in purity, that of the atmosphere.

He found that the substance which combined with quicklime, on the addition of lime-water to Buxton, Matlock, and common spring-waters, and formed therewith a white precipitation, was gas; and, estimating the quantity of this permanent vapour by the quantity of lime-water which is satured by a given portion of this substance in spring-water, Buxton water contains about half the quantity of gas that is found in common springs, and rather less than Matlock water, and other petrifying springs here examined; that, judging the quantity of gas in springs by the quantity of gas that will sature the quicklime in a certain bulk of lime-water,
as it requires the gas of fourteen pints of Bux- 
ton water, thirteen pints of Matlock water, and 
eight pints of common spring-water, to unite 
with the whole of the lime contained in four 
pints of lime-water; and, as four measures of 
gas are required to saturate the quicklime in 
nine measures of lime-water, it appeared that 
the above quantities of these springs contained 
four ninths of four pints, or about twenty-eight 
ounces measure of gas. It did not appear to 
him that the quantity of gas in spring-water 
could be estimated by the weight of the sedi-
ment formed by the union of the quicklime of 
lime-water, and the gas of spring-water, when 
this permanent vapour is only partially satu-
rated, but, when the gas is precisely saturated, it 
may then be estimated from the weight of the 
sediment. He found, that seven pints of Buxton 
water, and four pints of common spring-water, 
contain each about four ounces measure, or six 
grains weight of gas. He found that the quan-
ty of this gas, obtained by decomposing this 
compound of gas and quicklime, is four ounces 
and three quarters to five ounces and three 
fourths measure of gas from three pints and a half 
of Buxton water. He found three ounces mea-

Vol. IX. 

ure
fure of this permanent vapour from two pints of spring-water, and three ounces measure of gas from three and a half of Matlock water, and one pint of lime-water, when the gas in these three springs is precisely saturated by lime-water. But when this permanent vapour is not saturated, these waters afforded seven ounces measure of gas from each pint of lime-water saturated.

He found that the quality of the gas in these spring-waters is the same; with regard to the degree of concentration considered as a species of acid, as the permanent vapour extricated from calcareous earth; and he says, that the quantity of gas may be known in a certain quantity of spring-water, by ascertaining the quantity of lime-water that will saturate this permanent vapour in a determined bulk of water. For the quality of gas in springs being the same as that obtained by art, the quantity required to saturate a quantity of lime-water, equal to that saturated by this permanent vapour in a certain quantity of spring-water, is the quantity of this substance in that quantity of water. He found that the gas in these spring-waters could not be separated by the heat of boiling water. He alleges the conclusion is false, That because a spring-water
water contains gas to the test of lime-water, and deposits calcareous earth during exposure to heat, this earth is there dissolved by gas. He finds, that the water remaining after evaporating any part of a given bulk of spring-water, contains the same quantity, and not more gas than an equal bulk of water before evaporation. He found, on examination, that the gas in Buxton, Matlock, and the common springs, contain gas combined with quicklime, or with the compound of gas and quicklime, and not with simple elementary water, as hitherto supposed; and that a solution of calcareous earth produced the same appearances, on the addition of lime-water, as the above springs.

He contends, that iron, and other metals, were not in general dissolved by gas in mineral waters, but by an acid; and that the spontaneous decomposition of chalybeate waters might not, and actually does not, depend on the escape of gas, but upon a different efficient cause, viz. dilution of the metallic salt with which these springs are impregnated.

He found, that the tepid springs of Buxton afforded, upon evaporation, one three thousand eight hundred and fortieth of their weight, or...
sixteen grains of solid matter from a gallon of water, which was sea-salt, vitriolic felenite, and calcareous earth; the quantity of each of these, he says, was about one and three fourth grain of sea salt, two and a half grains of vitriolic felenite, and ten and a half grains of calcareous earth. He observes, that the crust formed on the inside of tea-kettles, and other vessels, after boiling Buxton and Matlock water, is calcareous earth, and vitriolic felenite; that during boiling, or evaporation by a less than boiling heat, no acid can be detected to be separated, consequently that there is no decomposition by the heat of boiling water of any kind of neutral, earthy or metallic salt. And he further proves, that this water contains no acid excepting the vitriolic and marine acids, and gas combined with fixed alkali and quicklime. Lastly, he found that Buxton water contains no phlogistic substance separable by heat and evaporation.

After this chemical history of the Buxton waters, Dr Pearson presents us with many experiments and observations on the permanent vapour which arises spontaneously from these waters. From thence he observes, we are informed,
formed, that, by pressure accompanied with degrees of heat and cold far exceeding those of the atmosphere, the permanent vapour is readily contracted in its dimensions, and, upon removing that pressure, it returns to precisely the same volume as before; that by heat it is readily expanded, and by cold speedily contracted; and he alleges it is subject to nearly the same laws, with regard to expansion, as air; that its specific gravity is the same, or rather less than that of common air, and of air united with phlogiston, or air altered by the putrefactive fermentation, by respiration, and by exposure to a mixture of iron and sulphur; that it is transparent and colourless in any bulk that can be conveniently viewed together; that it has no taste or smell; that it is sonorous, and when in motion may be felt like a blast of wind; and that it has viscosity.

By various experiments, he found this permanent vapour wholly unfit for the respiration of animals, and that they die therein for the same reason, and probably in the same time as in the air-pump; but he did not find it poisonous to quadrupeds, when taken into the stomach. He found, that fishes die in the tepid water of

Buxton,
Buxton, from the heat, and not from the permanent vapour with which it is impregnated; that light and flame are extinguished, by being immersed in it; that phosphorus, water, and any permanent vapour produce an appearance, upon motion in the dark, resembling the phosphoric light of the sea in the night-time; that phosphorus, by long agitation, ceases to shine in permanent vapour; but he found that the phosphorus itself, or its phlogiston, combines therewith, and forms a vapour which emits a flame upon exposure to atmospheric air; that inflammable substances which burn, or are decomposed by air, without light or flame, as nitrous gas, do not burn, and are not decomposed by the permanent vapour that arises from Buxton water. He found, that the permanent vapour extricated by the heat of boiling water from Buxton water, consisted, upon an average, of about equal parts of the permanent vapour which arises spontaneously from the tepid spring and air; and that under a mean pressure, and in a temperate heat of the atmosphere, the bulk of these two permanent vapours to the water, is as one to sixty-four. He found, that seeds do not grow in it, but that the living principle was not destroyed by,
by, the permanent vapour of Buxton water, inflammable air, air totally altered by respiration or putrefaction, nor by air united with phlogiston by inflammation. He found that plants grew, and frequently in a somewhat luxuriant manner, in the permanent vapour of Buxton, in inflammable air, and in air totally altered or saturated with phlogiston, by various processes, for a short time, and then die, sometimes suddenly, in general, gradually. He thinks, that vegetation probably never changes the permanent vapour of Buxton, or air totally altered or saturated with phlogiston, partially or wholly to the state of atmospheric air; but that the air found sometimes in receivers of permanent vapours, different from air in which plants have lived, is most probably excreted by the plants, and added to the included permanent vapour.

He found, that the mucilaginous and putrefactive fermentation takes place in the permanent vapour of Buxton water, and in air altered entirely by various processes. He likewise found, that an animal suffocated by this permanent vapour, does not putrefy sooner than an animal killed by some mechanical injury in a vital part; that solutions of metallic salts, mixed
with a large quantity of water, decompose in this permanent vapour, and in air totally altered by respiration, putrefaction, and phlogistic processes. He found, that the permanent vapour was neither acid nor alkali, when tried with an infusion of archill or violets, or that it contained or separated phlogiston, upon trial, with sal Saturni; that various acids, alkalis in a mild and caustic state, solutions of neutrals, earthy and metallic salts, alcohol, oils, and solutions of soap, have no effect in decomposing or altering this permanent vapour, but that they absorbed a small quantity of it; that lime-water, and common spring-water, saturated with common air, or in their natural state, do not unite with this vapour; and that common spring-water, deprived of its natural proportion of air, absorbs about one forty-sixth or one forty-eighth of its bulk of atmospheric air, one fifty-third or one fifty-fifth of its bulk of the permanent vapour of Buxton water, and from one forty-eighth to one sixty-third of its bulk of air saturated with phlogiston, or altered by exposure to a mixture of iron and sulphur; also one forty-fifth of its bulk of a mixture of equal parts of permanent vapour and air; he did not find the permanent vapour at all
all altered, by being a long time in contact with water, or lime-water; that by agitation, in a large quantity of boiling water exposed to the atmosphere, this vapour, as well as air saturated with phlogiston, or altered by various processes, mixes with the external air. This addition or mixture, he alleges, has been mistaken for a change of these substances into air. But these substances, he tells us, are not altered by agitation in vessels wherein the water is excluded from the atmosphere, nor perhaps when mixed with a pretty large proportion of common air, and in vessels of water communicating with the atmosphere; and lastly, he found, that this permanent vapour does not combine with, but is diffused through atmospheric air.

Upon the whole, from the many experiments and observations made, Dr Pearfon concludes, that the medical effects of these waters depend as much on the state of the atmosphere about the Peake, along with the different accompaniments in using the Buxton waters, such as exercise, diet, &c. as upon any medicinal effects of the waters themselves.

He alleges, that the purity of the atmosphere depends on the absence of phlogiston; and that the
the particular situation of the Peake prevents the air from being impregnated with such a large proportion of that fluid, as it is at a distance from large cities, where much inflammation is constantly going on, and where there are many substances constantly under a state of putrid fermentation, from which the phlogiston is constantly generating, passing off, and mixing with the surrounding atmosphere, rendering it impure; whereas at the Peake, there are not the same causes operating for the production of phlogiston; there is little matter fit for undergoing the putrid fermentation; and by the coldness of the air there, that process in the small quantity of matter in this region is much retarded, if not altogether prevented. Hence he concludes, that the atmosphere, about the high lands of the Peake, is much purer than in the rest of the island; and he therefore supposes, that considerable changes may be induced in a deceased body, that has been removed from a low situation into a higher one, with a purer atmosphere, such as that at Buxton.

With respect to the medicinal effects of the Buxton waters, from the various experiments he made upon
upon them, he concludes, that these depend on their containing an unusually small quantity of solid substances, being much less than in common cold springs; on their having a temperature considerably hotter than common water, this being in general from 48 to 50 degrees, while that of Buxton is about 81° or 82° of Fahrenheit's thermometer, occasioned, he supposes, by present subterraneous fires, or by such as formerly existed, but whose effects still remain. By this means, these waters are impregnated with, and are continually throwing off a permanent vapour, which he endeavours, from a variety of experiments, to demonstrate, is not gas, but a vapour composed of a portion of common air and phlogiston, which, upon being received into the lungs of animals, proves destructive; but when taken into the stomach, from various experiments he made, seemed to produce, in most cases, little sensible effects. This vapour he found to be heavier than inflammable air, but rather lighter than either common or fixed air.

From the experiments he made, he concludes, that the effects of these waters, externally applied, do not depend on the substances with which
which they are impregnated; and that the same effects, under otherwise similar circumstances of atmosphere, diet, exercise, &c. may be expected from pure water of the same temperature as that of the tepid spring of Buxton.

He also alleges, that any medical effects these waters may be possessed of, when used internally, depend upon the permanent vapour with which they are impregnated, and from their particular temperature. He therefore concludes, that more certain and greater effects may be produced, by exhibiting a larger quantity of that vapour for a dose, than what is contained in the quantity of Buxton water usually drank, or that can be conveniently taken into the stomach. He adds, we are not to expect the same effects from drinking the water when it is cool, or when the temperature is not preserved, or after exposure to the atmosphere, when it has separated a portion of the permanent vapour, as when it is immediately taken from the bath.

He suggests, however, a method of drinking Buxton water, after being kept in bottles for any length of time, of the same efficacy as at its source, abstracting from the effects of the accompaniments of the drinking it there.

He
He proposes, that pint-bottles should be filled with the water at the bath at Buxton, then being inverted in the bath, an ounce phial, filled with the permanent vapour that arises from the bath, should be made to rise within each of the pint-bottles. This being done, while in the bath, the inverted bottles are to be corked, and to be covered with a piece of wet bladder.

The method he proposes for collecting the permanent vapour, is by going into the bath with a phial, and a funnel in it with a wide mouth. These are to be immersed in the bath, so as to fill them with water, and then to be inverted. It is then to be observed where the greatest quantity of air bubbles are issuing out of the nitches or holes of the flooring pavement of the bath; over these is to be held the mouth of the funnel, by which means the air bubbles will be received into the inverted bottle, through the funnel, where a bulk of water will be expelled, equal to the bulk of permanent vapour that has ascended into the phial. The funnel is then to be removed; and the phial, while inverted, is to be stopped with a very sound cork, and covered with a piece of wet bladder. In this way, he
he says, it may be kept for a considerable length of time.

When the water is intended to be drunk, one of the pint bottles, impregnated as before directed, is to be immersed in water heated about 82°. After it has stood in this heated water a sufficient time, to acquire the above temperature, the bottle is to be agitated, and the quantity to be used, is to be poured out, and to be drunk off as speedily as possible. The remaining water in the bottle, should be poured out into a phial or bottle, which it will entirely fill, and always immediately before drinking, should be warmed in the same manner as the first portion.

By this means, he alleges, Buxton water may be drank, after being kept in bottles for some time, in as effacious a state, (exclusive of its accompanying circumstances,) as at the spring-head, as it may be brought to the same temperature; and, instead of losing any of the permanent vapour, he thinks, it may probably have gained by the quantity introduced, when the bottles were first filled.

He proposes a method, of making artificially, a water resembling Buxton water in its tempera-
nature and impregnation, which, he alleges, may be as efficacious, or even more so, than the real water at Buxton, in the following manner.

Distil, says he, a quantity of common hard spring-water in a gentle heat, in perfectly clean glass vessels, so as to have neither smell nor taste. To thirty-two ounces of this distilled water, put into a quart bottle, or large Florence flask, add fourteen grains of the purest chalk in fine powder, and four grains of vitriolic felsenite, composed by saturating quicklime, precipitated from lime-water by gas, with the vitriolic acid. This mixture is to be kept in a sand-heat of about 150°, for a week, agitating it from time to time; about four grains of the purest sea-salt is then to be added, and the whole is then to be boiled in a flask or silver vessel, so as to separate all the air it contains; it is then to be filtered through paper, previously washed, by filtering through it hot distilled water. He then directs this filtered solution to be divided into four equal parts, each of which must be contained in a wine quart bottle; to each of these portions, add as much of the distilled water, (deprived as much as possible of air,) as will fill the bottles; agitate
agitare them a short time, then invert them in a tub of common hard pump-water, and introduce, in the manner directed for impregnating Buxton water with permanent vapour, half an ounce measure of a mixture of one part of common air, and two parts of the compound of air and phlogiston, formed by exposing air to a mixture of filings of iron and sulphur; the bottles are then to be corked while inverted, and after agitating them some time, they are to be preserved in the inverted position out of the water for a month or six weeks. Upon drawing the corks of the bottles inverted in a tub of water, the permanent vapour will be found dissolved, or suspended by the water rising in the bottle, to occupy the space the vapour took up at first. During the time these bottles are inverted and uncorked in the tub of water, as little motion should be used as possible, to prevent the water of the tub from mixing with that contained in the bottles. Before introducing the compound of air and phlogiston into the bottles, he advises it to be deprived of taste and smell, by frequently transferring it through water.

In this way, he says, we may prepare a water resembling that of Buxton, excepting in temperature.
perature. This state, however, is to be obtained in the manner directed for drinking Buxton water, after it has been kept in bottles some time. The bottles of water should be kept in a perfectly cool place, till used.

Instead of the compound of air and phlogiston procured in the manner directed, if there be an opportunity, it will be better, he thinks, to employ the permanent vapour that arises from the tepid bath at Buxton, as collected in the manner before directed.

If distilled water cannot be conveniently had, rain or snow water, he believes, will answer the purpose.

If a larger proportion of the permanent vapour is required, than what is contained in Buxton water, he orders half an ounce of the permanent vapour, either artificially made, or that procured from the tepid bath at Buxton, to be added to the artificial or natural Buxton water, when drank; and he says, though it should not dissolve the above quantity of permanent vapour, yet, by a little agitation, it will be suspended till it be swallowed.

Dr Pearlton finishes this elaborate publication, with remarking, that the headach, vertigo and heat
heat experienced after drinking Buxton water, he supposes, is owing to the permanent vapour with which it is impregnated; and he alleges, that changes may be induced in the body, from using this water internally, which would not be produced from drinking the same quantity of common spring-water, of the temperature of Buxton water.

In this history, the ingenious author has unquestionably successfully exploded the prevailing erroneous opinion, that the permanent vapour which separates itself from Buxton water is gas, or fixed air. His observations and experiments, therefore, may be considered as not only useful to the art of physic, but to the arts and sciences in general, as they make an addition to the present stock of natural history.
X.

A Treatise on the Influence of the Moon in Fevers.
By Francis Balfour, M. D. Surgeon in the Service of the Honourable East India Company.
8vo. Calcutta.

The treatise now before us, dedicated to Mr Hastings, and published, we are told, at his desire, contains many particulars, no less curious in theory than interesting in practice. We presume, therefore, that we shall perform no unacceptable office to our readers, by presenting them with the different important propositions which he attempts to establish, subjoining to each, in the words of the author himself, the proof and illustration which he has offered.
Prop. I. In Bengal *, Fevers of every denomination are, in a remarkable manner, connected with, and affected by, the Revolutions of the Moon.

The bilious intermittent fever, which appears for the most part in the form of a tertian, or of a quotidian, and seldom, in that part, of a quartan, is by far the most common fever in this country. In whatever form it presents itself, I have almost invariably observed, that its first attack is on one of the three days which immediately precede the full of the moon, or on one of the three days which immediately follow it, or on one of the three days which immediately precede and follow the change of the moon. I have observed the remarkable connection which prevails at this time evidently, at least three complete days both before and after the full and change of the moon: So that it continues at least six complete days at each. In general, I think that the days of the full and change are more powerful than any other, and those that follow

* Under Bengal I comprehend all the possessions of the Company in this quarter of India, with the dominions of the Vizier.
follow the full and change more powerful than those that precede; but my observations respecting this point do not allow me to speak with any confidence. I shall, therefore, when I have occasion to mention the full and change of the moon, comprehend in my meaning the whole of the six days already described, at each of these periods, without regard to any one in particular. With respect to these two periods, I cannot positively say which of them has the greatest power of producing fever.

The full and change of the moon are no less remarkable for occasioning relapses than for inducing the first attack of bilious fevers. This is a fact so well established that there are few Europeans who have resided for any time in this country who are not sufficiently informed of it, either from their own personal experience, or from the daily proofs of it that occur in the circle of their acquaintances. But it cannot possibly escape the notice of any person who practises medicine with the smallest attention for a few months. For my own part, I have observed this tendency to relapse at the full and change invariably for these fourteen years; and in particular cases can prognosticate the return

K 3
of the fever, at these periods, with almost as much confidence as I can foretell the revolution itself.

The detached examples which occur in the course of common practice, not being properly attended to, or assembled, may sometimes perhaps, prove insufficient for impressing the truth of this general observation; but whenever a number of sick are collected together in one place, and a multiplicity of corresponding proofs are repeatedly presented at the same instant, persuasion follows insensibly, and every doubt is removed.

In the years 1773-4, I had for many months the charge of a regiment of Seapoys, in the province of Cooch Behar, immediately under the vast range of mountains which separates the northern parts of Bengal from Boutan. The disorders were chiefly fevers, or fluxes attended with fever; and in the space of the first month above 400 men were taken ill. The greatest part of these however got quit of the fever in the course of the eight days which intervened between the full and change, and, by the assistance of medicine, were soon reduced to 70 or 80. But during the remaining months of our stay
stay in that country, the sick constantly increased nearly to double this number at every full and change, falling down again as constantly to their former standard, during the eight days which intervene between these two periods. In future I shall call these intervening days the intervals.

Although I am now endeavouring to establish the superior influence of the full and change of the moon in producing bilious fevers, I must, at the same time, allow that the intervals are by no means exempted, either from first attacks, or relapses. But these happen much less frequently at this time, and when they occur, furnish arguments to support the proposition we are trying to prove: For the fits are now less severe, of shorter duration, and yield much more easily to medicine than those which happen during the full and change; and the approach of these two periods as certainly increases the violence of the disorders when present, as the coming on of the intervals brings along with it a remarkable abatement of the symptoms, or a perfect solution of the fever.

K 4 The
The remittent fevers I have met with in this country have either been purely bilious, or of a putrid tendency, such as the pucca fever of Bengal, described by Dr James Lind; or a few others of the same nature, less rapid in their progress, and resembling more the putrid fevers delineated by Sir John Pringle; to which I must add some rheumatic and nervous fevers, and likewise the fever which accompanies the eruption of the small-pox.

With regard to bilious remittents, whether you consider the particular time of their attack and relapse, the severity and duration of the paroxysm, and its disposition to remit, or the different changes that take place on their transition from the full and change to the intervals, and from the intervals to the full and change, the influence of the moon at these periods is no less remarkable in them, than it is in intermittents.

The inaugural dissertation of Dr James Lind on the putrid fever, which first prepared my attention for this subject, furnishes many proofs of the influence of the full and change in this disorder; to which I can now add my own experience, and the consent of many other gentlemen.
men who have been employed in practice at Calcutta.

In the few putrid fevers I have seen elsewhere, and in a small number of rheumatic and nervous fevers, the influence of the full and change never failed to shew itself in a remarkable manner; and in every case, where I have had an opportunity of making observations, I have seen it exert itself strongly in the fever which accompanies the eruption of the small-pox.

But these observations are not confined to intermittent and remittent fevers. Headaches, toothaches, inflammations of the eyes, asthmas, pains and swelling of the liver and spleen, fluxes, spasms and obstructions in the bowels, complaints in the urinary passages, eruptions of different kinds, and a great many more unattended by any obvious fever, assume often an intermittent form, and regularly return or increase with the full and change of the moon, and disappear or diminish during the intervals.

In general, as far as my experience extends, the attack of intermittents, during the influence of the full and change, happens at some period between eight in the morning and six in the evening.
evening. The accession of the paroxysm in remittents of all kinds is pretty much limited to the same time; and the period at which their remissions seem to be most complete, is between three and eight in the morning. Fevers no doubt attack at every hour of the day and night, but this observation I think holds good in the full and change.*

It is from the above analysis that I would venture to advance the proposition with which I set out in the beginning. I now proceed to shew, that, "In Bengal a particular and constant attention to the revolutions of the moon is of the greatest importance in the cure and prevention of fevers."

PROP. II. In Bengal a constant and particular attention to the revolutions of the moon is of the greatest importance in the cure and prevention of fevers.

Although it be no part of my present intention to enter into a particular detail of my practice,

* I have no doubt of the superior influence of the moon in fevers at the time of the equinoxes, but my observations have not been accurate; and the revolutions of the planets open a field which I have not attempted to explore.
tice, but solely to establish a single principle by which it is greatly directed, I find it previously necessary to deliver my sentiments with regard to the Peruvian bark.

Having practised in Calcutta in 1769 and 1770, during the season in which the remittent fever of Bengal, commonly called the pucca fever, prevailed, I communicated my observations on this subject to Sir John Pringle, in 1772. In that treatise I related my practice at large, and drew from it the following conclusions; which I have had no reason since to retract.

1st, That the bark* in powder is a certain cure for the putrid remittent of Bengal, commonly called the pucca fever.

2dly, That there is no symptom whatever that ought to prevent it from being exhibited, after the bile is duly evacuated.

3dly, That it may be given with safety at all periods of the disease, whether in the remission or exacerbation †.

4thly,

* The decoction cannot be depended on.

† This becomes absolutely necessary, when you happen to be called too late, for after the third or fourth day, the
4thly, That, when it is rejected by the stomach, opium will in all cases make it fit quietly, and in sufficient quantity to stop the fever.

5thly, That, in order to make a sufficient quantity fit on the stomach, or to prevent it from running off by stool, opium may be given in any moderate dose*, during any symptom, and at any stage of the disease, whether in the remission or exacerbation.

6thly, That the true pucca fever, as far as my experience extended, was not cured by any means, except the bark, after the patient had suffered three regular returns of the fit; and that by this medicine it was easily cured, after petechiae had appeared all over the body.

I concluded my address to Sir John Pringle, with observing, that although these were the principles

fits are protracted so long as to run into one another; and when this is the case, whoever waits for a complete remission, will find himself woefully disappointed.

* That is to say, in as great a dose as is almost ever given in any case as a medicine. I have often found it necessary to give three grains in 24 hours; and was once under the necessity of giving more than five. I begin with a moderate dose, which is repeated, or increased, just as I find occasion.
principles which conducted my practice in the cure of the pucca fever, I did not mean to advance them as rules to which there could not occur any exception, but that I never had met with any myself, and now proceeded on them with as little concern as if none could exist.

With regard to that species of putrid fever described by Sir John Pringle himself, and other authors of Europe, I have some reason to believe, that they might be brought to a more speedy termination, by an early and vigorous exhibition of the bark. But, at all events, I have no doubt that it may be given in every stage with safety; and that it checks the fever, and prevents the putrefaction from making any advances, whilst we continue at the same time to evacuate the corrupted contents of the bowels, and to supply the system with fresh stores of accecent nourishment.

I am strongly inclined to suspect, that all the nervous fevers I have seen in this country, were nothing more than putrid fevers, in a lower degree. This suggestion, however, I leave to the examination of farther experience, and shall only observe, that, in all such fevers, I have ever found the bark no less safe, than it is useful.

Very
Very few cases of rheumatic fevers have come under my care, but in all of them the fever returned by fits; in all there was a large secretion of bile; and they were all cured by evacuations and the bark, like other bilious intermittent fevers.

Besides the pucca fever, there occur in Bengal many intermittents and remittents purely bilious, which require nothing more for their cure, than early and plentiful evacuations; and in the upper and more healthy parts of the country, the pucca fever very seldom makes its appearance. Still retaining, however, the idea of this tendency in the pucca fever to run on to destruction, in spite of every evacuation, I was from this impression often misled into a premature exhibition of the bark, long after I had left Calcutta, and was removed to a climate where fevers were attended with much less danger. But when such mistakes were committed, that is, where the necessary evacuations had not been premised, they were very soon discovered and corrected. The bark was either thrown up with the bile in the course of the remission; or if it remained on the stomach, not having power to prevent the succeeding paroxysm, it seemed to render
render that more uneasy. These were all the bad consequences that ever ensued; and in such cases, all that was required was to repeat the common evacuations for a remission or two longer *.

Prompted by this anxiety, in the beginning of my practice, to remove the fever as expeditiously as possible, and encouraged by the safety and efficacy of the bark in the pucca fever, I was also frequently urged to an early exhibition of it in intermittents and remittents, attended with pain and obstruction in the liver; and from observing its innocence in all such cases, I have been led to a practice which I have since found to be safe and successful, and of which I shall now communicate the substance.

If, in intermittent fevers, which, from the habit and constitution of the patient, his mode of living, his long residence in this country, symptoms

* In the hot seasons of the year, I have seldom or never had occasion to desist from giving the bark after I had once begun to exhibit it; but in the cold weather, I have found it necessary to continue evacuations much longer; and if the skin can be well opened, it renders the effect of the bark much more certain.
symptoms of obstruction, the situation or season of the year, I have reason to suspect are disposed to continue for some time, and are not likely to yield easily to evacuations alone, after the stomach and bowels are cleared of bile, (which is always produced during the fit in great quantities), it is my constant rule to give the bark as soon as possible; in general, so as to prevent the third fit; and in cases where the disorder is habitual and well known, even so as to prevent the second, provided that a sufficiently copious evacuation of bile downwards can be effected during the first fit, or early enough in the beginning of the first remission to admit of its being exhibited in sufficient quantity, to be of any use in averting or alleviating the next expected return. In cases where a tendency in the fever to continue is much apprehended, even a slight pain in the liver does not prevent me from pursuing this practice, unless I find it increase to any considerable degree by taking the bark.

I follow this practice, 1/2, Because the pain and other symptoms of obstruction in the liver, which may appear, or be increased on taking
the bark *, are not to be considered of any con-
sequence, when compared with the superior ten-
dency which a continuation of the fever has to pro-
duce these effects, by accumulating the blood in
Vol. IX. L

* The large size of the liver, its warm situation in the
body, and the languid circulation and peculiar nature of
the blood which passes through it, suggest the probability
of relaxation, accumulation, obstruction, stagnation, cor-
rupation, and irregular secretion in this organ, in warm cli-
mates. And when we consider the pains and swellings
that are actually perceived in it, in the majority of Euro-
peans who reside in this country, together with the dis-
eased discharges of bile to which they are almost universa-
ly subject, that probability approaches in every individual
nearly to a certainty. This being the case, it does not
appear altogether fair, to load the bark with the blame of
creating all the obstructions and diseases of the liver, that
shew themselves on the exhibition of this medicine. The
reasoning which infers, that it does no more than bring to
light latent diseases of the liver already existing, is sup-
ported by the prevailing probability, that the livers of
Europeans, residing in this country, are rarely to be found
in a sound state. And as the bark, when taken by people
whose livers are perfectly sound, does not produce those
effects, and is not accused of generating obstructions in
the other glands of the body free of disease, the conclu-
sion which is made to its discredit, has no analogy in its
favour.
the vescera during every return of the paroxysm. 2dly, Because when any symptoms of obstruction are present, they are much more easily and effectually removed after the fever is gone, and any harm that may arise from the premature exhibition of the bark, is remedied with little trouble; whereas the mistake of delaying it too long, admits of no remedy whatever. 3dly, Because independent of every consideration of danger attending each fit, it is a matter of consequence to every person, to avoid the repetition of so severe an attack. 4thly, Because it is also of importance to preserve the patient’s strength, in a country where weakness always disposes to a relapse, and is attended with many other bad consequences. And, 5thly, Because, by stopping the fever immediately, you secure the patient’s life, a consideration superior, surely, to every other, against a great many accidents that are likely to happen at all times in the progress of this disorder, particularly from the want of proper sick-bed attendants *, which has very often proved fatal in this country.

II.

* For example, evacuations are absolutely necessary after every fit, whether the bark is to be given or not. The medicine
II. All the arguments I have been advancing in favour of an early exhibition of the bark in intermittents, are equally applicable in the case of remittents, whether attended or not with symptoms of obstruction. And as these disorders medicine prescribed for this purpose, at a certain hour of the night, is, from some cause or other, neglected altogether, or not administered in a proper manner. The patient perhaps cannot be prevailed on to take it, or perhaps it is rejected immediately by the stomach, and there is no person at hand to seize the opportunity of substituting another in its place; and perhaps a false report is made to the surgeon in the morning. From causes such as these, the evacuation which should have taken place in the intermission, being neglected, the bowels and circulation get loaded with bile, the stomach becomes so weak and irritable, as to receive neither medicine nor nourishment, the fever returns with double violence, and continues without intermission; and, in short, is converted into a dangerous bilious remittent. This leads me to observe, that I am much inclined to suspect, that the bilious fevers of the West Indies, with the yellow skin and other terrible symptoms, described by authors, are owing to a neglect of plentiful and repeated evacuations downwards, in the very beginning. For wherever I have met with it here, it has universally proceeded from this cause. And on the other hand, I have never seen it in that form, where proper evacuations were obtained at the beginning.
ders are more rapid in their progress, and more
dangerous, so is the necessity of this practice in
proportion more urgent. I do not recollect to
have lost a single patient in this disorder, since
I have proceeded on this plan; and I attribute
my success, to the dispatch and freedom with
which I go through the first evacuations; to the
particular care I always take to be certain that
these have been properly effected; to my early,
and, if I may be allowed the expression, even to
my premature exhibition of the bark; to the
perfect confidence I put in this medicine, when
given in powder to a sufficient quantity; and to
the free use I have made of opium, in order to
effect this purpose. In two or three cases of
bilious remittents, where no evacuations down-
wards could be effected by any means, and
where I began to suspect a putrid tendency, I
have saved the patient’s life, by preparing the
stomach with a large dose of opium, and throw-
ing in, during its operation, a quantity of bark,
sufficient to stop the fever.

III. In intermittents and remittents, attend-
ed with any considerable degree of inflamma-
tion on the liver, or any other part, venesection
must be instituted freely, as well as other eva-
cuations;
evacuations; and in many cases blisters are necessary; after which, if the fever still continues, and be not likely to stop, by prosecuting this plan, the bark is to be given without hesitation; for in all the partial determinations I have met with, I have ever found the fever do much more harm in one fit, than all the bark that is necessary to stop its return.

These being my sentiments with regard to the bark, the use and application of the facts we have established, respecting the influence of the moon in the cure of fevers, may now be explained without any interruption, and in the following manner.

1/2. When an intermittent of any kind appears towards the end of the intervals, the first object to be held in view is, to put a stop to it, if possible, before the approach of the full and change; because, as I have already observed, the paroxysms then become more severe, of longer duration, and more difficult to cure, and will sometimes continue so long as to run into one another, and assume the form of a remittent, and afford no convenient opportunity for exhibiting the bark during the whole of that period. And although evacuations alone will generally
generally remove the fever in the intervals, this is scarcely to be expected during the full and change.

For the same reason, when intermittents appear at the beginning of the full or change, the same object must be held in view, otherwise we must not look for a solution of the fever till that period be at an end.

2d. On the other hand, it is to be observed, that when intermittents make their appearance towards the end of the full or change, there is not the same occasion for a hasty exhibition of the bark; because there is a probability, if not of a spontaneous solution of the fever, at least of an abatement of its severity upon the expiration of these periods.

And we may also proceed more at leisure, when intermittents make their attack at the beginning of the intervals; for we have then sufficient time before us, both for plentiful evacuations, and for the bark, should it be requisite before the approach of the next apprehended revolution.

3d. One of the most important advantages to be derived from an attention to this system, is the mode suggested by it, of securing against relapses.
COMMENTARIES.

relapses. These generally happen at the full and change; and no person who has had an intermittent, can consider himself in any degree safe at these periods, until he has perfectly recovered his strength, and removed every symptom of obstruction. It is therefore absolutely necessary to watch these returns with the greatest care; and, in general, the use of laxatives, and a few doses of bark given a day before, and continued every day whilst the period lasts, will prevent a relapse. When these precautions prove ineffectual, and the patient, in spite of all his endeavours, neither recovers strength, nor gets quit of the symptoms of obstruction, we are then taught to remove him, with all expedition, to a climate where the influence of the moon is less perceivable, and less prejudicial, than it is in Bengal.*

All the common occasional causes of fever are to be avoided with more than ordinary care, at the full and change; such as exposure to the sun, full meals of animal food, or whatever heats and irritates, and, in short, excesses of any kind.

L 4

* At Madras it is much less felt, and a removal to that settlement from Bengal, is, in many cases, almost a certain cure.
When this system comes to be more generally understood, I flatter myself that it will suggest many useful hints, for the better management of all British soldiers and sailors serving their country in warm climates; and particularly of the latter, whose diet might be regulated by an attention to these unhealthy periods, without neglecting at the same time the judicious regard that is paid at present to a proper variety and interchange of food.

4th, With respect to bilious remittents, they are to be considered as no other than quotidian and tertian intermittents, whose fits are protracted by bile retained in the bowels, or taken up into the circulation, by obstructions of the liver and spleen, by the influence of the moon, or some other cause; and in them, an attention to all the different circumstances we have just now pointed out, is still more necessary than in intermittents, in proportion as their progress is more rapid, their danger greater, and their management more difficult.

The tendency of such fevers to attack and remit, during the full and change, at certain times of the day, which I cannot help considering as intimately connected with the relative position
of the fun and moon, with respect to us at these particular periods, belongs to this place, and furnishes many useful indications in the method of cure.

I have learnt, by long experience, that all laxative and purgative medicines, as well as injections, are very uncertain in their operation, and generally disappoint us, so long as any degree of fever is present. And tartar emetic itself, with all the management we are master of, will often at this time operate only on the stomach, and produce no effect whatever on the bowels. The period therefore at which fevers shew a tendency to remit, must be watched carefully, and purgatives must in all cases be administered on the first signs of a remission. And although these should not shew themselves distinctly, still the usual period of remission is to be preferred for this purpose. At this time they will generally operate, and evacuate the bile, which is the first, and, indeed, an indispensable requisite in the cure of these fevers.

When antimonials are to be given, with a view of cutting short the fever, or of relieving the stomach of bile, the sooner they be exhibited, so much the better. But if the intention be
be to carry off the absorbed bile by perspiration, and to procure a more complete remission, the period we have just pointed out is to be chosen, that the operation of the medicine may concur with the tendency of the fever to remit.

This period is also the proper season for throwing in the bark; and it is often of the greatest consequence, not to allow a moment of it to escape, but to begin with the earliest symptoms of its commencement; or when these are not manifest, at the earliest hour at which in other cases they generally begin to make their appearance.

These hints will suffice to shew the general application of our observations respecting this period to the cure of remittent fevers. On many occasions, however, circumstances are so urgent that we are glad to seize the moment that is in our power for the exhibition of these medicines, without regard to any period whatever.

5th, Putrid, nervous, and rheumatic fevers, are all in this country equally under the influence of the moon, and in all, our attention to these observations, will be of the greatest use, both
both in treating them when present, and in preventing relapses.

6th. My experience in the inoculation of the small-pox is confined to a small number of cases; but, from the few observations I have been able to make, I am perfectly satisfied that the full and change of the moon interfered with the eruption, and increased the fever to a dangerous degree. I have therefore determined to avoid this accident in future, by inoculating on the second or third day of the full and change; so that the eruptive fever may always happen in the intervals. And I have no doubt that, on farther experience, this observation will become a matter of serious attention in the practice of inoculation, and afford many useful indications in the treatment of this disorder when caught in the natural way.*

7th,

* I have long observed that the secretion of bile is increased at the full and change of the moon, in many cases where there is no fever. I have also observed, that whenever bile is taken up into the circulation, all wounds, sores, boils, eruptions, the gums of children teething, rheumatic pains, &c. are remarkably inflamed, and irritated by it; and I have farther observed, that all these complaints are remarkably
7th, With regard to headachs, toothachs, inflammations of the eyes, asthmas, pains and swellings of the liver and spleen, fluxes, spafms, obspuctions in the bowels, complaints in the urinary passages, eruptions of various kinds, and a great many more which return periodically with the moon, whether attended with fever or not, the cure entirely depends on a constant attention to these revolutions. By every succeeding return of such complaints, the parts affected grow weaker and weaker, more liable to relapse, remarkably inflamed and irritated at the full and change of the moon. From these premises, I have been led to conclude, that the bile secreted at this time, in greater quantity than usual, may be the cause of the irritation and inflammation I mention. And indeed this conclusion seems to be confirmed in a great degree by the good effects of purging in all such cases, and by the quantities of bile that are then carried off. Calomel, above all other medicines that I am acquainted with, possesses the power of carrying away the slimy and tenacious bile, with which the bowels are apt to become loaded in this country. Query, May not the good effects of preparing for the small-pox be owing to the evacuation of all kinds of acrid bile previously to the infection? And may not the mercury which is given on this occasion, by promoting a freer circulation in the liver, produce a more recent, and less irritating bile?
lapse, and more difficult to cure. On the other hand, by preventing each return, the parts have a longer interval for gaining strength, become less subject to relapses, and at last recover their former tone. Therefore, when such complaints do not originate from a diseased liver, a proper attention to regimen and to the state of the bowels, a judicious derivation from the part affected, and a timely exhibition of the bark before the approach of the lunar revolution, and during their continuation, will in general succeed. But it is to be remembered, that such periodical complaints, in almost every case, are connected with a diseased liver, which is best cured by mercury *; and the bark is nevertheless

* Long neglected obstructions of the liver generally terminate in dropsies, which, although far advanced, I have always found curable by a mercurial course, and other necessary attentions, provided that the disorder was accompanied by a tolerably smart intermittent or remittent fever. And the only cases in which such a course failed, was where there was no such fever to be observed. In such hydroptic cases attended with a fever, the transition from the full or change to the intervals is a very critical period, and often brings on a free discharge of urine, especially if the blood be previously loaded with mercury, and
less to be given at the full and change in such quantity as prevent relapses.

8th, As an attention to the system we have been endeavouring to explain will teach the physician how to foresee and provide for the various occurrences that are likely to happen in fevers, so it will enable him, not only to explain to others, in a rational manner, the past and present phænomena, but also to predict future events; a convincing proof of real science, and a certain source of reputation and confidence to him, and of inexpressible satisfaction and ease to his patient.

Having thus found, by an application of the principles established in our first proposition to the treatment of fevers, that they are not only useful in assisting us to cure, but also to prevent these

a determination made, exactly at this juncture, to the kidneys, by the exhibition of diuretics, such as tincture of cantharides, fowils, and alkaline salts. It would be an investigation no less instructing than curious, to ascertain the exact dates of all dropsies cured by sudden and unexpected discharges of urine; for I cannot help suspecting that most of these, as well as the sudden and unexpected solutions of fevers, would be found connected, in a striking manner, with the critical period I mention.
these disorders, the truth of our second proposition follows of course.

Prop. III. The Influence of the Moon in Fevers prevails in a similar manner in every inhabited quarter of the globe, and consequently a similar attention to it is a matter of general importance in the practice of medicine.

Being by no means prepared to supply the comprehensive induction that is requisite to establish this proposition on an unexceptionable or certain foundation, I must therefore proceed by a method less direct, and which, although it may not afford the same degree of certainty, may, however, perhaps, answer the purpose of drawing the attention of the Faculty in other parts of the world to a subject which really seems to deserve it.

By my own experience and observations, I know that the influence of the moon, at the full and change, prevails in fevers from the 13th to the 26th degree of north latitude; and we have certain accounts of it in Arabia and Persia from the authority of the physicians of these countries. Hippocrates, who practised in Asia and
in Greece, and in latitudes still higher than Arabia and Persia, observed it, and wrote of it 2000 years ago. And we have testimonies of its existence in all the intermediate latitudes between Greece and Great Britain. Upon these grounds, it is not extending the analogy too far to conclude, that it prevails in every inhabited northern latitude*. And these testimonies being also so many various proofs of its existence in a great number of northern latitudes, we shall likewise venture to infer that it prevails in every inhabited northern latitude. And, in short, (uniting the argument arising in favour of this conclusion, from these particular instances, with that derived from the known universality of the moon’s influence on the ebbing and flowing of the sea), that it prevails over the whole northern hemisphere. But having proceeded thus far, we are unavoidably led to advance still farther on this analogical ground, and to conclude that the influence of the moon prevails equally in the southern hemisphere.

The universality of the moon’s influence in fevers, all over the globe, being once admitted, it

* That is to say, as far north as the influence of the moon extends in the case of the tides.
it will follow, by a closer analogy, that its influence is exerted in a similar manner, at the same periods, and lasts for nearly the same length of time; \textit{viz.} for six days at the full and change. It will follow also, that, in all parts of the globe, the knowledge of this general law may be applied to the cure and prevention of fevers in the same manner as in India; and consequently, that an attention to it must be of general importance in the practice of medicine.

**Prop. IV.** The whole doctrine of the Crisis of Fevers may be easily explained from the premises we have established respecting these disorders at the Full and Change.

If the histories and descriptions of fevers had been handed down to us by medical authors, with a minute attention paid to the date of every occurrence in the course of the disease, so as to have ascertained in every case the relative situation of the moon, I am inclined to believe that we should have found the abatement and final solution of fevers so much connected with the expiration of the periods of the full and change, that the truth of this proposition would

Vol. IX. M have
have appeared at a single view, without further investigation or argument. But that indispensable requisite in every species of history has been neglected. And, on the other hand, modern practice leaving much less than formerly to nature, and putting a stop to fevers in the very beginning, or interrupting them in their natural course and termination, denies us that assistance which we might otherwise receive from daily observation. I can therefore do nothing more than invite the attention of future observers to this curious and important subject, by assuring them that I am fully convinced myself of the truth of this conclusion, from my own experience; and that, in almost every case where I have had an opportunity of attending to fevers at the period when the full or change expired, and the intervals commenced, I have observed almost invariably, either some symptom of the abatement of the fever, or a perfect solution.

This observation, which was first made on common bilious and rheumatic fevers, first led me to conclude that the transition from the full and change to the intervals, is a favourable critical period in fevers, and that all the days of
the interval are also favourable. And as I have likewise been able to observe almost invariably an increase of the fever upon its passing from the intervals into the full and change, and during the continuation of these periods, and frequently death, I therefore ventured to conclude that the transition from the intervals to the full and change is an unfavourable critical period in fevers, and that all the six days formerly described are also unfavourable; in other words, that, "along with the full and change of the moon, there is constantly recurring some uncommon or adventitious state or quality in the air, which increases fever, and disposes to an unfavourable termination or crisis; and that along with the intervals, there is as constantly recurring a state or quality in the air, opposite to the former, which does not excite, but diminishes fever, and disposes to a favourable crisis."

* If this be true, besides having established these propositions, we shall have also approached, by a very considerable step, towards a more intimate acquaintance with the more immediate cause of fever; for, by a comprehensive system of experiments and observations, we shall now be able
The histories of fevers delivered to us by Hippocrates being deficient in the essential requisite of date; and his account of crises so much mixed with a particular theory of his own concerning able to ascertain the nature of that state or quality in the air which causes so essential a difference at these periods. Such a system would require a journal of every lunar day, containing a cotemporary record of fevers and other disorders; of the human body in a state of health; of the heat, moisture, and weight of the atmosphere, and various winds; of experiments and observations made on the state of electricity and putrefaction; of the various revolutions of the sun, moon and stars; and of a great many other circumstances that would be suggested occasionally, in such a manner as to ascertain their relative states and situations; and, finally, their connection as causes and effects. An undertaking of this kind would be more than enough for the constant employment of one man, and is far out of my reach: But it belongs to this subject, and is worthy of being remarked, that it is a fact established in this country, on general observation, that the tendency of meat to spoil is much greater at the full of the moon than during the intervals. I know also, from experience, that at all seasons of the year, the full and change seldom fail to produce, for some time, an uncommon calmness, heat, and closeness in the air; and, if I be not mistaken, it is that calmness, heat, and closeness, which lay the foundation of the winds which prevail so much about these periods.
CONCERNING THE ORIGINAL STADIA OF FEVERS, AND ALSO WITH SOME VAGUE AND UNPHILOSOPHICAL IDEAS RESPECTING THE ASPECTS AND CONJUNCTIONS OF BENIGN AND MALEVOLENT PLANETS, ANY ATTEMPT TO REASON ON WHAT HE HAS DELIVERED TO US, ON THIS SUBJECT, WOULD BE A WORK OF MERE CONJECTURE, AND AFFORD BUT LITTLE SATISFACTION. IT IS MORE TO THE PURPOSE TO SAY, THAT, SINCE I HAVE GIVEN MY ATTENTION TO IT, I HAVE MET WITH NO TURN OR TERMINATION IN BILIOUS, RHEUMATIC, OR NEURALGIC FEVERS, WHICH I HAVE NOT BEEN ABLE TO EXPLAIN TO MY OWN SATISFACTION ON THIS SYSTEM; THAT I HAVE ALSO BEEN ABLE TO PREDICT THEIR TURNS AND TERMINATIONS WITH MUCH CERTAINTY; AND THAT THE DURATION OF SUCH FEVERS IS NOT LIMITED TO ANY FIXED CRITICAL PERIOD DEPENDING ON ODD OR EVEN DAYS, BUT IS CONSTANTLY CONNECTED WITH THE FAVOURABLE AND UNFAVOURABLE CRITICAL PERIODS I HAVE JUST DESCRIBED. AND WHENEVER THESE PERIODS INTERFERE WITH THE ERUPTIVE FEVER OF THE SMALL-POX, I AM CONVINCED, FROM EXPERIENCE, THAT THEY ARE TO BE CONSIDERED IN NO OTHER LIGHT.

FROM WHAT HAS BEEN ALREADY OBSERVED ON THE SUBJECT OF THE PUTRID OR BUCCIA FEVER OF BENGAL, I HAVE NO DOUBT IN DETERMINING THAT THEIR FAVOURABLE AND UNFAVOURABLE CRITICAL PERIODS ARE THE
the same with those of the bilious, rheumatic, and nervous fevers, and of the eruptive fever of the small-pox. But to reconcile to this doctrine, the putrid fevers described by Sir John Pringle, Mr Tiffot, and Dr Hillary, terminating regularly in 14, 17, and 19 days, is a matter of great difficulty. And I must here once more regret that all these histories are materially deficient in being destitute of every kind of date; and that I am again reduced to the necessity of advancing with the faint and partial light of my own experience.

In the course of my endeavours to account for these facts, which at first seemed to establish a limited duration to particular fevers, independently of any favourable or unfavourable critical periods; and therefore, to militate strongly against our present theory, I was led into the following train of conjecture.

In the case of putrid fevers, continuing 19 days, I supposed that there must have been a strong putrid tendency in the habit, and that the febriferous influence of the air, which prevails

* If it be confirmed, by farther experience, that this febriferous influence is constantly connected with an increased
vilts at the full and change, co-operating with this tendency at these periods, had the power of producing a fever on the second day from their commencement, and that, before means could be used to stop or correct this disposition in the patients habit, the fever continued to run through the first full or change, and succeeding interval, and also through a second full or change; but that the putrid tendency being now in some degree overcome by medicine, and at the same time the febriferous influence, of the full or change removed by the arrival of the second interval, a crisis, of consequence, immediately took place at this juncture, just about 19 days from the first attack.

In the case of putrid fevers, continuing only seventeen days, I supposed that in them the putrid tendency of the habit was somewhat less at

M 4

...
the beginning than in the former case, and that the febriferous influence of the full or change had not power to excite a fever until the fourth day of the period, when the putrid tendency was farther advanced; that the fever continued to run on during the remaining days of that full or change, through the succeeding interval, and also through another entire full or change, in the same manner as the fever of nineteen days; and that at last, from the concurrence of the same causes, it terminated critically, immediately on the commencement of the second interval, just about seventeen days from the first attack.

And lastly, in the case of putrid fevers, continuing only fourteen days, I supposed, that the putrid tendency in them being still less than in those of seventeen days, the febriferous influence of the full or change had not power to excite a fever, until the very close of the period when the putrid tendency was sufficiently advanced, or towards the beginning of the interval; during which interval, and the whole of the succeeding full or change, it continued to run on, and at last, from the concurrence of the causes we have just explained, terminated critically, immediately
ly on the commencement of the second interval, just about fourteen days from the first attack.

Since I became possessed of these sentiments, regarding the crisis, and the above theory of putrid fevers, I have had an opportunity of meeting with only four or five cases of this kind. In one of these, the fever continued exactly seventeen days, and terminated completely and finally on the commencement of the second interval; a circumstance which afforded me no small satisfaction, as I had predicted the crisis on the theory just explained at that very juncture, and was looking for it with anxious expectation. In the other cases, I had not an opportunity of ascertaining the beginning of the fever, nor consequently the exact time of its duration; and a perfect solution did not take place, as I had expected, on the approach of the second interval; but, in all of them, the disorder took so favourable a turn at this period, that it might be called, without impropriety, a crisis of the fever.

Whether I have hit on a just explanation of the cause of that variety which appears in the duration of these period fevers, is a question which I shall leave to the decision of farther experience.
perience. But I will not scruple to pronounce, even from these few examples, that they, as well as the other fevers of which we have already spoken, have their favourable and unfavourable critical periods; and that these are no other than what we have already described, viz. the full and change of the moon.

The detail which I have brought to support my opinion, respecting favourable and unfavourable critical periods, is now only defective in examples of inflammatory fevers; and although I cannot say, that I have had an opportunity, in this country, of making observations on any that could be esteemed purely and solely inflammatory, yet as I have seen the effects of these periods in partial inflammations, in fevers attended with inflammatory symptoms, and in every other kind of fever, I shall not consider them as any exception to the general rule.

Whilst we employ this doctrine of favourable and unfavourable critical periods, to explain the different crises of fevers, the ancient theory of concoction must of course fall to the ground. But there is no necessity on that account, for rejecting the idea of a morbid matter, which in many instances certainly exists, and which we conceive
conceive may be perfectly reconciled with our present system, on the following terms.

1st. That in bilious and inflammatory fevers, which we know may be stopped in the beginning, or at any stage, a morbid matter, if any exists, has so small a share in determining the crisis, that it is not to be regarded in practice; and that in all such cases, the favourable and unfavourable critical periods demand our principal attention. The termination of nervous and rheumatic fevers seem also to be much more under the dominion of these periods, than any internal constitutional principle that I have been able to discover *, and therefore come under the same rule.

2d. That in the small-pox and measles, and other such diseases, the duration of the fever seems to be chiefly determined by the peculiar nature of the infection; but that great attention is also to be paid to the favourable, and especially the unfavourable critical periods, which may

* If it should be determined by future observation, that most of the fevers called nervous, differ from the putrid only in degree, it will probably be found also, that their progress and duration is affected by the favourable and unfavourable critical periods in a similar manner.
may aggravate the symptoms, interrupt the natural progress of the fever, and protract it beyond its usual length.

3d. That in putrid fevers there is a putrid tendency in the habit, to overcome which, a considerable space of time is often requisite; sometimes more, sometimes less, depending on the degree to which it is advanced, and perhaps on other circumstances; and that their apparent limitation, on certain occasions, to a fixed duration, arises from the influence of the favourable and unfavourable critical periods exerting itself in the manner already described.

4th. That the natural tendency of the constitution, with the concurrence of other occasional causes, may produce fevers in the intervals, independent of any assistance from the febriferous influence of the moon; and when fevers of any kind begin and terminate in the intervals, the effects of the unfavourable critical periods will not interfere in such cases, and must not therefore be expected.

5th. That when the internal cause of fever is very powerful, and the symptoms run extremely high, the effects of the favourable and unfavourable critical periods may not be observable,
vable, although their influence in such cases nevertheles continues to be exerted.

To sum up the whole, it appears, that, by e-stablishing the existence of favourable and unfavourable critical periods, we have acquired the knowledge of a principle which is useful in the cure and prevention of fevers, and which also teaches to predict and explain their various crises, on grounds that are consistent and satisfactory. It is therefore unphilosophical to search for any other; and our fourth proposition must remain unshaken until it be refuted, not by the bare dissent of one or two, who may not have directed their attention expressly to this subject, and by whom the very phænomena upon which the whole system is built may have passed unnoticed or uncollectected, but by the united experience and opinion of many future accurate and intelligent observers."

We have thus presented our readers with the different arguments by which Dr Balfour has attempted to establish the propositions which he has enumerated. How far, from a candid consideration of what has now been offered, the reader will be disposed to conclude, that the revolutions of the moon have not only a powerful influence on fe-
vers in Bengal, but also in every inhabited part of the globe; how far he will be disposed to admit, that attention to these revolutions is of the greatest importance in the prevention and cure of fevers, we will not pretend to conjecture. But we may at least conclude, with observing, that it is a subject which highly merits attentive observation from all those by whom it has hitherto been overlooked; and that it is one of those particulars, concerning which, a decision should be formed by strict regard to fact, not by theoretical speculation.
COMMENTS.

I.

A Letter from Dr Robert Hamilton, Physician at Lynn Regis, to Dr Duncan, giving an Account of a Successful Method of treating Inflammatory Diseases, by Mercury and Opium.

I have taken the liberty to send you the following summary account of a successful method of treating inflammatory diseases with mercury and opium, which has been practised here almost eighteen years, and I believe is scarcely known anywhere else in the kingdom; and therefore,
therefore, I flatter myself you will think, may, with propriety, be inferred in your valuable Commentaries, that it may be communicated to the world.

In July 1773, I gave some information of it to my excellent friend Dr John Gardiner, the present worthy President of the College. And in the year 1776, I gave a short account of it to my amiable and learned friend, the late Sir John Pringle; and expressed a wish at the same time, that this method of treating distempers of the inflammatory kind might have a candid trial in the public hospitals. But although this met with the countenance of this great man, in private, so little was it consonant to common practice, and so difficult is it to overcome prejudices, that I apprehend it never was tried, as no young gentleman that I have met with, who had attended the hospitals in London since that period, ever saw mercury and opium administered in those diseases, in any one of them.

The following circumstance first led me to this method of treating inflammatory distempers.

At the close of the year 1764, the fleet which returned from the East Indies, brought a worthy
thy surgeon of the navy to England, who had served in that country eight years. By this gentleman I was informed, that the established method of curing the hepatitis, or endemic inflammation of the liver, incident more particularly to Europeans, than the natives in that country, was by mercury: that mercury was, in general, esteemed a specific in that disease: that the method was, after the patient had lost some blood, and taken some gentle purgative, to have a strong mercurial ointment rubbed in on the region of the liver, and to give either calomel, mercurius alkalifatus, or the mercurial pill, until the salivary glands were affected by the mercury, or the inflammation removed: that the sooner a gentle spitting was raised by these means, the sooner the patient got well: that this method of cure was generally successful, if employed early in the distemper; but if it was neglected, the liver, which was commonly so turgid as to be perceived externally to be enlarged, soon suppurred: that he had had a number of patients with suppurations in the liver, from this disease, under his care, and had opened many of those abscesses. Some of his patients thus treated had recovered, but more
became tabid, and sunk under the profuse discharge.

The respectable authority of a man of probity, and professional ability, who had had a large share in assisting to superintend and conduct the naval hospital on the coast of Coromandel, and consequently had had an ample field for information, deserved particular attention, as there was reason to believe, that this practice might be adopted with advantage, in many places in England; and particularly in this country, as the environs of Lynn are very low, and surrounded with fens and marshes of many miles in extent, which are liable to inundations, are mosty under water in winter, and thus far resemble many places in India, where the hepatitis is endemical. Our diseases are nearly the same with those of similar situations in India; particularly the bilious autumnal remittent and intermittent fevers, an allowance being made for their difference in violence and malignity, from the greater exaltation of the subtile poisonous miasmata, by the intense heat of the climate in India. We have sometimes a most dangerous hepatitis. Some patients in that disorder falling under my care, soon after my friend’s arrival
arrival from India, I gave the method of cure with mercury a trial, and found it successful. I used the ointment in very few instances, and gave no preparation internally but calomel; to which I soon, however, found it necessary to add opium, in order to relieve that distressing concomitant of inflammation, the pain, which happily answered that purpose most effectually.

This success led me into the following train of reasoning. The efficacy of mercury in ophthalmia had long been established: Its specific virtues in every symptomatic venereal inflammation, had been long known: Its liberal use in inoculation, in the modern way, had borne testimony of its power in abating inflammation; and the success in treating the hepatitis in India, with the late instances of the same kind which had passed under my eye in this country, were fresh proofs of its excellence. I considered, that the general cause (be what it may) of an inflammatory diathesis, must be the same, whether the inflammation is seated in the meninges, pleura, lungs, liver, diaphragm, or any other internal membranous part; and therefore, the circumstance of locality could make little or no alteration in the general intention of cure.
From these premises, the following deduction naturally arose.

As mercury had proved so successful an agent in removing inflammation in the several instances above mentioned, it was reasonable, from analogy, to conclude, that it would prove equally so in every kind of inflammatory disease. Wherefore I was determined to give it a fair trial in every one, as opportunities offered for that purpose, and flattered myself, from the data before me, that my experiments would be attended with success.

The peripneumony was the first disease that fell under my care, after this resolution was taken. The success attending the administration of calomel and opium here, filled me with astonishment. I was successful in a great number of cases, and under a variety of circumstances. I have had the satisfaction to see women far advanced in pregnancy, in a manner rescued from death, in the last stage of the peripneumony, by calomel and opium, after every other means, which had been tried, had failed in relieving the patients. I had the pleasure afterwards of seeing them go their full time, be safely delivered of living children, and enjoy the happiness of bearing
COMMENTARIES. 197

...ing several others since that period. I have known many a life saved in the symptomatic, variolous and morbillous peripneumony, by these medicines; and I never saw any remedies afford so certain and speedy relief in obstinate dry catarrhous coughs, as those, particularly when continued until the mouth became affected by the mercury. The same means have proved equally efficacious in pleurisy. But the most extraordinary and early relief I ever saw calomel and opium give, was in the phrenitis and paraphrenitis, which has been repeatedly experienced in a great number of cases. Inflammations of the intestines, and other parts within the abdomen, have most readily yielded to this treatment. I have, in the 66th volume of the Philosophical Transactions, in the account of a puncture made into the bladder through the anus, for the cure of a suppression of urine, mentioned the use of calomel and opium in that disorder. I have known the greatest benefit arise from those medicines, in childbed fevers, with highly inflammatory symptoms. In the inflammatory angina, calomel mixed with the balsamic tincture and honey, laid upon the root of the

N 3 tongue,
tongue, and swallowed gradually, has frequently given great relief.

Having succeeded in the most unequivocal manner, in curing local inflammatory diseases by this practice, my experiments were next directed to that formidable malady of general inflammation, the acute rheumatism; and I had the satisfaction to see this also give way most readily to it.

I have many times experienced the most happy relief from excruciating pain in an highly inflammatory gout; and some of my friends, as well as myself, have repeatedly experienced the most salutary effects from this practice, in this distressing disease, for several years, in our own persons.

We have also found equal benefit from the use of those medicines, in inflammations arising from external injury, either in head, thorax, or abdomen, as we experienced in those arising from an internal cause.

Having named the distempers in which our first experiments proved successful, it is now requisite to give a detail of our general mode of practice in this town and neighbourhood ever since that period, in all inflammatory distemper.
pers, arising either from an internal or an external cause, which is as follows:

Blood was directed to be taken away in the beginning of the disease, in quantity proportioned to the violence of the inflammatory symptoms, and the age and constitution of the patient. And the bowels were next ordered to be emptied, either by clyster, or (more commonly) by an eccentric purgative. After which, a composition, consisting of from five to one grain of calomel, and from one to one-fourth grain of opium, (with any conserve in a bolus), in proportion to the strength and age of the patient, was administered every six, eight, or twelve hours, as the degree of inflammation, or the threatening aspect of the distemper, seemed to require; and a plentiful dilution with barley-water, or any other weak tepid beverage, was at the same time strictly enjoined. After taking three or four doses of this medicine, in the course of twenty-four hours, the patient was generally greatly relieved; and in twenty-four more, the distemper commonly gave way, and soon terminated. But if not relieved in the first twenty-four, and the high inflammatory symptoms continued, with little or no abatement,
(which was rarely the case), more blood was taken away, and this mercurial composition was directed to be more frequently given, and continued until the distemper resolved, either by sweating, purging, or more commonly both, or by a ptatism being raised. I have observed a great variety in the effects of mercury thus administered. When the patient sweated or purged much, the salivary glands did not become soon affected. But when the evacuations by the intestines and skin were not copious, the spitting was the sooner excited. And I have seen large quantities of mercury given for a continuance, without affecting the mouth in the least, or producing any very large visible evacuation, yet the patient was greatly relieved. A little increase of urine, indeed, was all that was sometimes to be seen; and we may conjecture, that the insensible perspiration might sometimes be increased also. But be that as it may. If this method of cure was employed early in the disease, the patient's recovery was soon accomplished, whatever was the operation of the mercury. But if employed late, it was attended with more uncertainty, the case was rendered more doubtful, and the recovery was more flow,
flow, but most commonly the soonest, when the salivary glands were affected.

If the fever was violent, accompanied with a dry contracted arid skin, emetic tartar, and sometimes camphor, were added. And I beg leave here to observe, that I never found any medicine, either in a simple or aggregate state, produce so certainly, speedily, and effectually, a relaxation of the skin, and a plentiful discharge from its pores, as a composition of calomel, opium, emetic tartar, and camphor, which has also the advantage of increasing the evacuations by stool and urine: from which it would appear, that the glandular secretions, in general, are most essentially promoted by this composition.

When I have been consulted in an advanced period of any inflammatory disease, I have frequently found it necessary to direct blisters, as powerful auxiliaries to this internal method of cure, to be applied to the side, sternum, hepatic region, extremities, &c. as the nature and seat of the distempers, or urgency of the case seemed to require; but very seldom to the head, because, from repeated experience, I have long found, that the inflammation of the skin, and subsequent discharge from blisters on the lower
lower extremities, have, in many inflammatory diseases, (particularly in the phrenitis and paraphrenitis), afforded much greater relief than when they had been applied to the head. But, when calomel and opium had been employed early in the disease, it was very rarely, and in very bad cases indeed, that blisters were found to be requisite.

After the inflammation began to resolve, and the distemper appeared to be on the decline, the Peruvian bark, in decoction or powder, was directed to be taken, with great advantage *, and a suitable portion of wine was ordered to be added to a proper diet, in order to recruit the debilitated system. It is almost needless to add, that the bowels were kept soluble during the cure, by some gentle purgative, if that purpose was not sufficiently answered by the mercurial medicine; or to observe, that acids were avoided, for obvious reasons.

It has been alleged by some who had heard of this method of treating inflammatory diseases, that as other powerful medicines had been frequently joined to the calomel, the cure might, with greater probability, have depended upon them.

* Particularly in the acute rheumatism.
them than the mercury. I candidly acknowledge, that I have always thought the opium of the most essential service, by relieving that most harassing symptom pain; and must allow, that I have thought the emetic tartar and camphor have sometimes contributed towards the cure. But truth obliges me, at the same time, to observe, that we have very often seen cases wherein emetic tartar, camphor and opium had been for some days employed, with the assistance also of those remedies of the saline tribe, which are usually given in inflammatory disorders, without affording the smallest relief in the disease, which, although arrived at a considerable height, to the great danger of the patient, has, on calomel being added, given way in a very short time. I must also add a well known fact here, that calomel and opium have; from the first exhibition of mercury in inflammatory diseases in this place, to the present time, succeeded in a very great number of cases, without any other addition. And moreover, that even with the additions above named, many diseases of this kind have proved so obstinate, as not to discover any tendency to an amendment, until the salivary glands were affected, when the distemper gradually
dually gave way; as the spitting advanced, and afforded a most decisive proof, that the cure was effected by the mercury. We generally therefore look upon it as a happy preface of the patient's recovery, when the salivary glands become affected by this noble medicine.

The East India method of treating inflammations of the liver, has long been communicated to the world. I presume you are not unacquainted with the account of it, published in the Medical Museum in 1764, that year my friend returned to England. Dr Lind's relation of it, in his account of diseases incident to Europeans in hot climates, and the result of that excellent physician's experiments with mercury, on some patients who had returns of the hepatitis in England, which are therein recited, must have long been known to you. I may also rest assured, that you must have remarked what Dr Clark has said of it in his account of East India distemper; and must have seen the account of his success in curing an hepatitis, with mercury, at Newcastle. And a man of your reading and observation, must have remarked, that neither of those writers, or any other that I know of, have dropped the least hint of ever attempting
to give mercury in any other inflammatory dis-
fi\lemper, in either of the three cavities of the
body.
Having finished this summary account, I have
only to add, that the subject of it is not the
ha\fy result of a few months practice, but that
it is founded on the solid basis of (I must again
repeat) near eighteen years successful expe-
rience, to which many of the principal prac-
titioners of this town and neighbourhood can
bear the most ample testimony.
The diagnosis of diseases of the slaves of this country cannot, in general, be so accurate as of those of white patients; and this partly from their ignorance, but more from their inclination to imposture; and hence we are very frequently obliged to draw our information, and form our indications, from temperamental dispositions, aspect, pulse, and the moral character of the patient.

From these general circumstances, we cannot, without injuring our patient essentially, determine whether the stimulating or sedative plan should be followed, until, by a patient attention to
to the effects of remedies, we are able to ascertain the nature of the disease, if disease really exists.

For the same reasons, we cannot always ascertain, with due precision, the effects of remedies, as they are often not used, and their operation frequently misrepresented.

From this difficulty we are in a great measure exempted with respect to the extensive class of pyrexiae, so far as evident phænomena can be our guides, and enable us to form a judgment of correspondent morbid sensations.

It is necessary to premise these observations, that the following remarks may be adopted with due diffidence, even with all the advantages resulting from visiting from 3000 to 4000 patients every year.

**STIMULANTS.**

Sinapi, an ounce and a half, to one pound proof spirit, and half a pound of water, adding to the strained liquor three ounces spirit of sal ammoniac, given in doses from half an ounce to one ounce diluted, once or twice a-day, is a good medicine in debility of the stomach and bowels,
bowels, chronic rheumatism, and anomalous gout, and all diseases connected with languid circulation and torpor, or depraved sensibility. It is peculiarly useful in the morbid disposition which I call *Cachexia Africana*, but which Sauvage denominates *Anasarca Americana*, cl. x. ord. 2. gen. 6. sp. 7. a most frequent and fatal predisposition to disease among the slaves.

**Piper Cayensis**, is a pure stimulant. It was never used here in a medical form, until I introduced it, though always a favourite condiment, qualifying the effects of vegetable foods, on which the negroes chiefly subsist. From five to eight grains, formed into pills, with canella alba and tar, or half an ounce infused in one pound proof spirit, and from one to three drachms diluted as a dose, has similar effects (but more powerful and immediate) with the former and next article.

**Canela Alba**. This is called here black cinnamon, and is not the true winter’s bark, but, as a pure aromatic stimulant, is, I think, preferable. Of this I prescribe every year some hundreds of pounds. It adds to the efficacy of the
the bark in intermittents, when given to the quantity of five grains to each drachm. It is a useful adjunct to bitters and chalybeates, and also to astringents in all passive serous discharges, and renders purges and diuretics more grateful and stimulating in low cases.

A S T R I N G E N T S.

In hot climates, excess of the excretions, active or passive, constitutes very frequently the essence of disease, or is at least a leading and very urgent symptom. This may be owing either to the violence of our febrile paroxysms, by which the irritability of the system is not only much increased, but the morbid determinations become very great and sudden; or to the putrefactive, or other acrimonies, and tenuity of the fluids; or to general laxity and debility: Hence haemorrhages, cholera, diarrhoea, dysentery, profuse sweats, and serous effusions, in different degrees, into the various cavities.

ALUM. From ten grains to half a drachm for a dose, is an useful and safe astringent, especially when its ungrateful stimulus in the stomach...
mach is mitigated by spermacetii, gum Arabic, or opium. In a late epidemic dysentery, I used it with advantage; the vitriolic acid combined with earth of alum renders it sedative and antiseptic; and as it is at the same time eccropotic, in a large dose, it is the safest astringent I have hitherto tried. Dr Percival’s remarks on this drug, led me to try it early and boldly. Its use in haemorrhages is well known; but I think the sanguis draconis does not cover it so effectually as the gum Arabic. I have also used it with advantage in some febrile diarrhoeas; and in what I call the Diarrhoea cachectica, which carried off many negroes last autumn. Whilst the dysentery reigned, I experienced good effects from it, when combined with aromatics.

Lapis Calaminaris. From five grains to one scruple for a dose, with one or other of the adjuncts mentioned under the preceding article, is a powerful astringent in the diarrhoea cachectica; and its use was more warrantable and necessary, as not a few were destroyed by this disease in the course of two or three days.
ACETUM LITHARGYRITES, given by way of a clyster, from twenty drops to one drachm, was of use in mitigating the extreme irritability of the rectum in the advanced stages of dysentery, and diminished the frequency of discharge. In the diarrhoea cachectica, it seemed to have considerable tonic powers, when joined with a decoction of tar and spiritus vinosus camphoratus, given as a clyster.

ANODYNES.

From a long and extensive experience of the effects of anodynes, (especially opium), I am inclined to believe that no class of medicines requires qualifying adjuncts so generally, not so much to promote their efficacy, as to obviate their bad effects. Unless when given to lessen pure nervous irritability, they often become unsafe, by diminishing the secretions and excretions, and promoting accumulation and congestion in the circulating and glandular systems. Therefore I seldom give opium, without combining it with ipecacuanha, the active antimonials, or, in low cases, with some of the pure stimulants, foetids, or volatile alkali; and if, by these additions,
additions, I can keep the belly soluble, or the skin open, or both, I rarely, if ever, remark any of those untoward effects from it, which it produces *per se*; that is, the head is less affected, and the patient less subject to anxiety and languor. Emetic tartar seems to be a more powerful adjunct than ipecacuanha; and, when combined with opium, renders the latter more safe and effectual, when given early in diseases from irritation, even when attended with fever, as in cases of dysentery, diarrhoea, catarrh and rheumatism. Amongst our formula we have the following apparently drastic remedy, which has nevertheless had surprising effects in the diseases just enumerated, either when the inflammatory diathesis does not exist in any considerable degree, or after it has subsided. *R.* Vitr. antimon. granum unum, calomel. grana duo, pil. faponac. P. L. grana septem. This is the common dose, (though I have sometimes given fifteen of this compound), taken at bed-time, and warm drink. It sweats powerfully, sometimes creates nausea, and generally loosens the belly. I am persuaded I might have succeeded better in the treatment of the epidemic dysentery, had I used this remedy when it first appeared. Whether
ther its good effects are owing to powerful de-
termination from the intestinal canal, or to some-
what specific in the mercury, perhaps to both,
is, I think, uncertain.

Extractum Cicutae. During the pre-
valence of the dysentery, several cases occurred
of an untoward and dangerous remittent, accom-
panied with depression, anxiety and pervigilium.
This remedy, from half a scruple to half a
drachm, with camphor, from five grains to half
a scruple, given at bed-time, quieted those symp-
toms, and seemed to render the remissions more
regular and complete. In one or two cases of
recent amenorrhea, the extract has restored the
menstrual flux; but, in general, there is no dis-
ease on which medicine makes so little impres-
sion as this; and yet it occurs very frequently
among the negro women, and, sooner or later,
brings on fatal diseases. It is of use also when
the lochia are sparing from febrile spasms.

Vermifuga. Several of our indigenous
plants are celebrated; the cow-itch, anthelmia
occidentalis, bark of the cabbage-tree, &c. One
other has lately been introduced here, which I
O 3 call.
call the anthelminia Bermudensis. While the others have untoward effects, when not given with caution, this is perfectly inoffensive; and yet, in some cases, has been found to be a powerful anthelmintic; it is probably the same plant from which the semen fantonicum is taken. It may be given in infusion to any quantity. I have found the following, however, a pretty certain vermifuge: Rx. Anthelm. occidentalis (common worm-grafs) unciam unam, cannell. alb. scrupulos duos, pulv. jalap. scrupulum unum, vitriol. cœrul. grana decem. M. The dose is from ten grains to two scruples, according to the age, once or twice a day. When it has been suspected that worms were connected with the fever of children, magnesia, or chalk, in considerable doses, and a due portion of vegetable acid afterwards, have expelled worms, and removed the fever.

NAUSEATIVA. I use these frequently in fevers, especially in the first stage, from an idea, that, by the ungrateful sensation they excite in the stomach, they resolve spasm, and powerfully check the force of the heart. I rarely give cathartics, without the addition of some one or other
other of the emetic tribe, (unless extreme irritability of the stomach forbids), as their operation is rendered thereby more extensive, by increas- ing the secretions by the skin and kidneys, those of the other glands, and those also which are produced by serous effusion into all the cavities, large or cellular, in every point of the system. And to the perversion of these latter, I am disposed to attribute many of the most dangerous circumstances of disease, whether acute or chronic.

Ipecacuanha. Dr Lewis at Kingston, author of the Materia Medica, &c. first led me to substitute this in place of the antimonials, to which, though a chemist, he had an insuperable aversion. It was his catholicon, whether the disease was acute or chronic; and indeed I have seen remarkable good effects from it, given every three or four hours in a nauseative dose. It has one advantage over the active antimonials, its operation as an emetic or cathartic is so limited, that no injury can be done, even when the patient is weak; but I do not, from long experience, find it to be so powerful as the antimonials; especially the following compound, which
I think, on a fair comparison, is preferable to James's powder: *R.* Crem. tart. calomel. utriusque grana quinque, tart. emet. granum unum. This is a full dose; to the weak and younger patients, half the quantity is given. It creates nausea generally, often vomits, and commonly purges and sweats. If it do not purge, I direct half an ounce of catharticus, and half a grain of tartar emetic, a few hours after, and sometimes repeat the mercurial in six or eight hours, if the case be urgent. It is of great use in such fevers as begin with violent or untoward symptoms, and generally brings them to a favourable remission, or complete intermission. In topical inflammations, especially pleurisy, it is the most certain remedy I have yet experienced; and I also tried it with advantage at the commencement of the epidemic dysentery which lately raged here.

**Fixed Air.** Some of our most violent remittents commence with excessive vomiting. I therefore tried the magnesia in a large dose (two scruples, or one drachm) in water, directing some diluted vegetable acid to be given immediately after; and one or more doses in this way
way restrains the vomiting, is gently laxative, and abates all the febrile symptoms. If there be diarrhoea, I give the fixed alkaline salt diluted, and, after it, diluted vegetable acid, though I believe the mineral acid will, in general, do as well. If the stomach be not very irritable, I generally add one grain of ipecacuanha to each dose of the magnesia or chalk. I have tried fixed air exhibited in this manner in the epidemic flux, and in the worm fevers of children, with considerable advantage. My friend, Dr Athill, had been for some years much subject to severe fits of gravel; by my advice, he has used the fixed air with great advantage, as has an assistant of ours, who had severe attacks of colic from biliary calculi. In the advance of low putrid fevers, I have experienced good effects from the fixed or volatile alkali in an infusion of serpentina and contrayerva, and the decoction of the Peruvian bark, superadding vegetable acid, or acid elixir of vitriol, so that the fixed air being evolved in the stomach, may act with full power.

Vitriolum Coeruleum. Though I have given this medicine in a variety of cases, I cannot
not yet fully decide upon its powers and effects, otherwise than by being perfectly assured, that in the many thoufand instances in which I have prescribed it, I have found it perfectly safe. Many years ago, a letter from Maryland to the late Dr Parsons of London, fell into my hands, wherein the author afferts its great efficacy in phthisis pulmonalis, strymous enlargement of the glands and inveterate ulcers. And the late Dr Chalmers of South Carolina vouches for its good effects in the colica pictonum, when accompanied with other means. From an attentive consideration of its effects, I consider it as a mild nauseative and ecorprotic, and that it is sedative and tonic. It sometimes vomits very gently; but I am often disappointed when I give it with this view, though it never fails to purge. The following is the form in which it is generally given: Rx. Vitriol. cœrul. femidrachm. aq. font. sesquilib. f. solutio. Of this, the emetic or cathartic dose is from a tea-spoonful to two table-spoonfuls, repeated every two or three hours, till it produces either effect. If it vomit, it only produces one mild puke; and if I wish to promote the operation, I repeat the dose, giving a pint of warm water before and after each,
each. But I am often disappointed, as it purges more frequently than it vomits. Though I frequently give it as a placebo, or where I suspect a negro is not ill, and often prescribe it empirically, when I am not well assured of the nature of the disease; yet I have used it in the following diseases, and I think with advantage, in mild colics and diarrhoea, in some cases of the epidemic dyentery, and diarrhoea, though rarely in the latter, because I did not think myself warranted in losing time by making experiments, in diseases so dangerous and rapid in their progress. In intermittents, I give it alternately with emetics every day, one or the other, until the patient has undergone three or four paroxysms; and if the fever recurs after that time, I give the bark. But I think I have in many cases, especially of the spring remittents, and intermittents of this country, which are not so acute or dangerous as the autumnal, by this remedy alone, removed the fever; and should, I believe, in many more; but the people in this country are not always to be restrained from giving the bark, after the first or second paroxysm. In anomalous intermittents, it has either entirely cured, or at least paved the way for the use of
of the bark. In worm cases, I give it either alone, or joined with the anthelmia and jalap. In cases of inveterate ulcers, I give it in a purgative dose every day, or every second day. In one or two cases of enlargement of the lymphatic glands, probably strumous, the humours disappeared after its use, but in many others it has failed. In hæmorrhages of all kinds, where a mild purge was indicated, either to empty the bowels, or for the purpose of revulsion, I prefer it; and I sometimes join opium with it in such cases, though it is not so certain a tonic as the alum. In leucorrhœa I think I have seen good effects from it; and I have lately tried it in a few cases of gonorrhœa, but believe it will not answer, unless assisted by mercury; for most of those cases among the negroes are complicated with bubo or chancre.

Though my friend Dr Athill thinks he has seen good effects from it in obstinate coughs, with hectic fever, I do not recollect an instance of this kind, wherein I thought it useful.

Arsenicum album. Having seen this mentioned in the Medical Commentaries, as having been useful in cancerous cases, I advised a trial of it,
it, in the case of a lady, who had several tumours on the nose and face, which were probably of this kind; and having met her some months after, her face was almost entirely clear. It was used also as a lotion, in a case of the most obstinate herpes I ever saw, and which had resisted, for many months, the most powerful means. The disease was entirely removed by it, used internally, and applied externally.

We have a disease in this country, hitherto deemed incurable, and called here the black scurvy, which answers pretty nearly to Sauvage's Elephantiasis Indica, being species 9. ord. 5. of class 10. On my return into this country, I determined to try the vitriolic solution, with sublimate, in some of these cases, but without any sensible good effect. I then had recourse to the arsenic, which seemed to have good effects in one case; but our opium falling short, I was obliged to desist; but shall again give it a fair trial. There is a disease here, which the negroes call canker; its chief symptom is a most inveterate ozena, which, though it may sometimes be connected with lues venerea, is certainly in many instances a distinct disease, and probably a species of the elephantiasis. This remedy had
had an amazing and speedy effect in a case of this kind, in a negro girl of about twelve years old. I am also trying it in the *Framboesia*, or yaws. I formerly used it in solution; but the following I find to be preferable: \( \text{Rx. Arsenic. alb. grana sex, opii grana duodecim, nitr. et gum. Arabic. utriusque drachmas duas, mucil. gum. Arabic. q. f. f. pilul. N° 48. Dof. pilul. una ad sex bis in die, dosin femsim augendo, et superbibendo aq. tepid. lib. unam. If they purge or gripe, which they rarely do, I direct some tinctura thebaica after them. The following is the external application I have lately directed: } \text{Rx. Syr. facetar. uncias duas, fpt. vin. uncias tres, acet. letharg. femunciam, arsenic. alb. semidrachmam. M. With this the ulcers are to be touched twice or thrice a-day.} \)
Account of the Discharge of Animals by the Anus, much resembling the common Caterpillar, and which were found to be the Larva of an Insect. Communicated to Dr Duncan, in a Letter from Mr Robert Calderwood, Surgeon, Dalkeith.

I here send you, according to promise, an account of the boy who discharged that uncommon species of animal I mentioned to you, and of which some specimens accompany this letter.

He is four years old, and was remarkably healthy from his birth, until the middle of April last, when he shewed some symptoms of worms. He complained of headach and pain of his belly, picked much at his nose, rubbed his teeth violently together, and started in his sleep; his appetite was uncommonly keen, and his belly, for the most part, bound. About the beginning of May he was attacked with the measles, but so favourably, that he was going about un-
til the third night after the eruption, when he was suddenly seizes with locked jaw. In a few minutes after he was deprived of sense and voluntary motion, and lay as if in a profound sleep, interrupted however by frequent moans and starting. He changed colour often, and seemed much oppressed at times in his breathing; his belly, throat, and face, particularly the upper-lip, swelled prodigiously. Once or twice he vomited and shivered, like one in the cold fit of an intermittent. He made almost no water, and had been bound in his belly for seven or eight days. His pulse was frequent, and his skin hot. In this situation he was for three days before I was called to him, having swallowed nothing all that time.

I applied immediately a large blister to his throat, which reduced the swelling, and, in a great measure, removed that spasmodic affection of the muscles of the lower jaw. He swallowed two or three tea-spoonfuls of wine and water, and a bolus of conserve of roses, containing two grains of calomel. In a few hours after, he had a stool, and passed with it a large lumbricus, eighteen or twenty inches in length, and four animals, such as those I have sent you, but rather larger,
larger, as they diminished in size towards the end of the discharge. Next morning his parents told me that they had crept out of the anus, one by one, all night; and seemed as if they were released from confinement, for they very soon made their way to different parts of the room. Having never seen or heard of such animals in the human body, I would hardly believe he had passed them. To convince me, they turned down the bed-clothes, when, to my great astonishment, they were to be seen in numbers about his breech, three or four having made their way up to the pillow. In the evening, he knew and spoke to his parents, but still was in a comatose state, and appeared like one in the last stage of hydrocephalus. I gave him another bolus with calomel that night, and ten grains of jalap next morning, which brought away incredible numbers, both with and without stools. He continued to pass them at times, for seven or eight days, and recovered his senses and the use of his limbs by degrees. The swelling of his belly and face fell, and in two weeks more, he was restored to his usual health, without a single complaint.
The parents tell me, that for two or three weeks before he was seized with the measles, he went frequently into the garden, and had eaten the young leaves of cabbage, &c. Is it not probable, that he had then swallowed the ova of these animals? as from several circumstances, I suspect that they were not in their natural element, whilst in the alimentary canal; and particularly from the circumstance of their living so long after being passed. They were all alive, and continued so for above twenty-four hours. Those that I gave you, lived fifteen or sixteen hours in a tin-box. Another circumstance worth notice is this, that the boy enjoyed a perfect state of health, and had no signs of worms until he began to eat these raw vegetables; and he has remained, ever since that, without a single complaint.
IV.

Account of extraordinary Effects from the Application of cold Water after Delivery. By Dr J. Fitzpatrick, of Dublin.

I was sent for to the wife of Roger Mercer of Goulstown, county of Westmeath, in the year 1770. She had before been the mother of several children, and was then supposed to be seven months pregnant, but had been under the necessity of keeping the bed for more than two months previous to my seeing her, on account of an almost constant uterine discharge. This, at times, increased to such a degree that she fainted. When I first saw her, her legs and thighs were much swelled, and the whole countenance of a pale fallow colour, her strength almost exhausted, and the colour of the discharge and consistence rather like the washings of fresh meat, as there seemed to be no perfect blood remaining, for every change of posture brought
on some new discharge. She was rather inclined to a flumbering, out of which she generally awoke as if affrighted, with retchings, which seldom failed of bringing on fresh appearances.

Having understood that a person of the profession had frequently visited her during this indisposition, I requested that he should be sent for, which was complied with, and the following day we met at the patient's house, when, from every appearance, there was nothing good to be expected, excepting by immediate delivery. For this I urged, as there was every reason to suppose, that the placenta was, in part, detached, or that it adhered to the neck of the womb; and, perhaps, by extending itself over the os uteri, according as that dilated, would necessarily be more and more separated; so that protraction in this case was only to be attended with more danger. Notwithstanding that I proposed to become the operator, he was averse to having anything done at that time, as she was uncommonly weak. We parted, after recommending such diet as we imagined most easy of digestion, and nourishing. After ten or twelve days I was again sent for, when I found her much
much weaker than before; and then intreated for a second interview with the gentleman, who was pleased to let me know, that he was very apprehensive the woman would die, in attempting to deliver her, and that he did not wish to be present; but would give sanction to whatever I did, as he believed nothing was to save her but immediate delivery.

On receiving this account, I knew not what to do, as his declining even to be present at the operation, must have heaped censure upon me, (he being an old practitioner, and very successful, and I but very young); but I was determined to forego every thing for the recovery of the poor woman, as every symptom that could add to my early apprehensions increased. She was now reduced to a state of insensibility or childishness, and her pulse very weak. The first thing to be done, after informing her husband and other friends of the absolute necessity of delivering her, was to learn every thing possible relative to the state of the uterus, when I discovered, that the os uteri was very much dilated, and a part of the placenta protruded. This confirmed me in my former opinion; and, having slipped on a broad bandage, that I might
give her as little disturbance as possible, after the delivery, I then placed a window-shutter in the bottom of a lofset, and having placed her on the shutter, the delivery was completed in five minutes. To effect this, I introduced the hand so, as to keep the back of it opposed to the placenta,—and, without much difficulty, brought the child by the feet, having met with no sort of resistance from the uterus, for it seemed incapable of contracting itself. The instant the delivery was over, a large quantity of cold water was poured into the lofset, so as to have her back immersed. The bandage was drawn tight, to assist the faint contraction of the uterus, (from which I had every thing to fear), and cold vinegar was poured from the region of the stomach to the pubes. She remained in this situation for some minutes, until I had reason to believe the uterus had contracted; for after three minutes, by laying my hand gently over the navel, I perceived a tightness under the part, which gradually increased, until that sort of globular fulness and hardness was evident, which after delivery generally sets in, and indicates the contraction of the body of the uterus.
During the time she remained in the machine, until she was delivered, she drank near half a pint of Port and water; but after that, until I had reason to believe the discharge from the uterus was diminished, which was about four minutes, she merely took a little vinegar and water, (for I observed in two cases which I met with before, that every thing cordial, by increasing the action of the heart, &c. increaseth haemorrhages). She remained in the lofset, before and after delivery, about ten minutes, when I had her lifted gently, by means of the window-shutter, into her bed, where I continued for some time the application of vinegar-cloths, and moderately loosed the bandage, not having, from the time the uterus exerted its own power, so much occasion for the exterior pressure, and fearing some bad consequence might arise from its obstructing the necessary circulation in the viscera, which I am inclined to think sometimes happens.

In the course of the after treatment, nothing material occurred; but I found it necessary to put her on the use of bark, chalybeates, &c. and a very dry diet, rather cordial for some time, by which means she was perfectly recovered.

P 4
The child likewise required a more aromatic
sort of diet than is generally necessary; for not-
withstanding that he was rather large, yet his
colour and great weakness proved how much
he was injured by his mother's losses. She car-
ried the child, by what I could learn from her,
after she was recovered, near nine months; but
was deceived, by her having almost from the be-
ginning some appearances.

The reason I did not put the cold water into
the loset before the delivery, was, left the sud-
den contraction, which would naturally follow
from its effects on the surface, should drive the
blood to the uterus, which could not contract,
so long as it retained its burden.
V.

Account of a singular Tumour in the Groin, removed by Extirpation. By Mr James Bowen, Surgeon to the 30th Regiment.

A Man belonging to the 30th regiment was reported to me for a swelling in his groin, on the left side, just below the aperture, in the tendon of the obliquus descendens muscle. This was become so very troublesome that it prevented him from doing his duty. Upon a slight view of his complaint, I imagined it was an incipient bubo; but, on a more particular examination, I found the tumour receded from a very slight pressure of the fingers, and passed down into the scrotum. I was a little surprised at this circumstance, and believed it might be the testicle, (which I had before, in other patients, seen in such a situation), but I evidently could distinguish the tumour, independent
ent of the testicle, the tumour being the size of a large pigeon's egg.

Dr Lanphier, physician at Waterford, with Mr Davies, surgeon in that place, did me the favour to visit the patient with me; who, on examining the tumour, (it being then in the scrotum), had an idea that it was an enlarged testicle. But, on my desiring them to be more particular, they very readily passed (as I had done before) the tumour from the scrotum to its former situation. This gave the patient little or no pain, unless the tumour was handled roughly.

We thought it might be an indurated gland; and, as it was become very painful and troublesome, the best way was to make an incision, and take it out. The man consenting to have anything done I thought most proper for his relief, I gave him some gentle medicine that procured him two or three stools; and the next day, in the presence of Dr Lanphier and Mr Davies, I made an incision the length of the tumour, and carefully dissected, imagining the tumour would turn out; but I found it everywhere surrounded, and closely adhering to a great quantity of cellular membrane. It was of a transparent
transparent hue, and appeared to be full of some fluid. I divided the whole length of it, and let out about an ounce and a half of thin lymph. A large portion of cellular membrane protruding, I made two stitches, and brought the lips of the wound as close together as possible.

I took eight ounces of blood from the patient, and applied some slight defensive; and, with superficial dressings, fomentations, and emollient cataplasms, the wound was perfectly healed, and the man restored to his former health in three weeks.

He had very little symptomatic fever, although some time was taken in the operation. It is now two years since, and the man has not had the smallest return of his complaint.
VI.

Observations on the Yellow Fever of the West Indies. Communicated to Dr Duncan in a Letter from Dr Samuel Curtin, Physician at Rio Bueno, in Jamaica.

As I made the yellow fever of this country the subject of my inaugural dissertation, I was very desirous, on my arrival, of obtaining information concerning it. From the conversation I have had with some of the most eminent practitioners here, and the few cases that have happened in my own practice, I should be induced to make some alterations, was I to attempt a second publication. You will observe that I have referred this disease to the genus synochus of Dr Cullen's nosology. I was induced to do so, from considering that it was always ushered in with inflammatory symptoms, and generally terminated, when fatal, with those of an opposite nature.
nature. These two stadia, though universally admitted, yet often differ in degree. Sometimes the inflammatory symptoms are very violent, and the disease, if properly treated in the beginning, is seldom attended with symptoms of putrefaction. The principal indication seems to be, to obviate putrefaction, by diminishing the too great action of the system. If then proper evacuations are made in the incipient state, the disease generally yields to the bark. In consequence of this practice, which is now universally adopted, those alarming symptoms, which rendered the very name of the disease terrifying, are in general obviated; and when it proves fatal, it is commonly owing to want of timely assistance. Like the vernal intermittent and remittent fevers of Europe, it requires sometimes venesection, always purging. The bark afterwards proves the most efficacious remedy. It appears to me to be perfectly of the remittent kind, for, on the third day, there generally happens a complete remission of eight or ten hours, and, if the bark be not given, it assumes a continued form. The yellowness on the surface, which appearance has given a name to the disease,
ease, is not always uniform in its approach. Sometimes it accompanies the very first symptoms of the disease, at other times does not appear till a late period. Although I have endeavoured to prove, that it depends upon putrefaction, yet I am now inclined to think that it is sometimes owing to an effusion of bile; for it sometimes appears at the commencement of the disease, when no symptoms of putrefaction can be perceived. However, as a sufficient number of facts have not yet fallen under my observation, I chose rather to make it the subject of some future epistle, than offer any thing at present, which I cannot establish by a sufficient number of facts, and render probable by reasoning deduced from them. There is one peculiarity of this fever, which I have taken notice of, and it is confirmed by the united testimony of practitioners here. That negroes are never affected with it; and, what is equally remarkable, I have not met among them with a pure tertian intermittent in the whole of my practice, though white people are often affected with them. I have been informed by practitioners here of forty years experience, that it is a rare occurrence
occurrence among negroes; that they have not met with more than one or two instances in the whole of their practice; and that even these few have been confined to mulattoes and house-negroes, or those who live in the same manner as white people. This is a fact I have never met with in any writer, and, for that reason, have made it the subject of my particular inquiry.

Intermittents are very frequent in this country, and, when they attack people soon after their arrival from a European country, often prove very obstinate. Some instances of this kind have also fallen under my care. The most effectual method, I find, is, to reduce that rigid tone of fibre, so peculiar to the inhabitants of northern regions, either by moderate bleeding or purging, and then the bark proves generally successful; for I have known it given for a length of time, with no effect, until, by such evacuations, particularly purging, its action has been rendered more certain. Indeed I have given this medicine in larger doses in this country than ever I have known it given, even to the extent of an ounce at a time,
time. This quantity, if administered at the approach of a fit, generally prevents its recurrence. An universal glow of heat succeeding, effectually prevents the formation of the fit.

VII.

Account of the successful Treatment of a Case of Hydrocephalus, by Mercurials. By Dr A. Campbell, Physician, Hereford.

In a long course of practice, I have attended many patients ill of hydrocephalus internus, and I am sorry to say, I never knew more than one recover, a young man of twenty-five, who was recovered by repeated bleeding, and purging with salts. For several years after, he was subject to giddiness, and pain of the head, recurring at uncertain intervals, of which he was occasionally
COMMENTARIES

occasionally relieved by bleeding and purging. A small degree of strabismus remained for several years. The successful treatment of the following case with mercurials, as happily suggested by Dr Percival, has induced me to transmit it to you. Nov. 13. Mr Palmer was called to a stout boy of five years old, who had been attacked on the 10th with pain in the head and limbs, pain and stiffness in the nape of the neck, and with sickness at the stomach; he had fever, with stupor, and was costive. Mr Palmer knowing that the child was subject to worms, gave him an infusion of Indian pink, with tincture of rhubarb and spirit of vitriol, which was continued until the 17th, when the child was worse. The disorder was now apprehended to be hydrocephalus internus, and I was desirèd to visit the child; but, being from home, Mr Palmer applied a blister to the nape of the neck, and directed a solution of emetic tartar. The blister discharged very well for several days. When I saw the child in the evening, the mother confirmed the above account, and added, that when he was first taken ill the head leaned forward, as though it were too heavy to be supported, and the neck was so stiff that the

Vol. IX.
child turned his head with the body, when he looked to either side. He was in a stupor, could not speak, made constant moanings when awake, and was continually turning his head on the pillow, and applying his hand to it, chiefly to pick his nose. The pupils were greatly dilated, and when a lighted candle was applied before his eyes, he did not express the least perception of it. The eye-lids were mostly half shut, he looked pale, but had frequent flushings in the cheeks. The tongue had a white fur on it, and was in constant motion, as were his lips; the heat of the body was temperate; the head was somewhat hotter; he had some fever; the pulse beat about an hundred strokes in a minute; he indiscriminately swallowed what was put in his mouth; the urine and feces passed involuntarily from him. 18th, R. Calomel. grana quatuor, pulv. febrifug. vulgo James's powder, grana tria, m. et statim fumatur; et repetatur calomel. quinta hora exinde fine pulvere febrifug. et affricetur drachmam unam unguent. coeurul. fort. tibis. The first dose excited vomiting and sweating. From this time to the 22d, the calomel was given twice a-day, and the same quantity of the ointment was rubbed in each day. One, two, or three
three liquid stools were promoted each day, and it was supposed that the child voided a good
deal of urine. He lay much quieter, and the sleep was less disturbed; no soreness nor heat
of the mouth was perceived. On the 22d and 23d, he had five grains of calomel twice a-day,
and the ointment as before; urine and stools as before; the pulse was less frequent, and he was
quiet. 24th, R. Calomel. Jalap. Scamonii, singulorum, grana quinque, m. statim fumatur;
had several stools. 25th and 26th, Took five grains of calomel once a-day. 27th, Took
the calomel twice a-day; no soreness of the mouth. 28th, He was quiet, and I thought him
weaker. R. Extract. cori. Peruv. drachmam unam; tinct. cantharid. drachmam unam, aq.
menth. v. simp. uncias sex, sacchar. alb. drachmas duas, m. Cap. duo larg. coch. ter de die; hor.
somn. repet. calomel. 29th, Persistat fumendo misturam. Dec. 1. The child is much better;
the pupils contract, and dilate, and he can distinguish objects, calls for assistance to the stool
and urinal, the urine of a higher colour, turns paler on standing, and deposits a white mealy
sediment. Dec. 3. Can speak but very slowly, and is very weak, continues the mixture, has
two stools a-day, and voids plenty of urine.

Q. 2

Dec.
Dec. 5. Sat up most of the day, and can walk with assistance. 10th, Is now well, though he be yet somewhat weak.

P. S. About a week before I was called to this child, I attended a boy of three years old, in the same disorder. He was treated in the same manner as the above, and the symptoms seemed to be abated on the third day, but he died on the fourth or fifth.

VIII.

Observations on lymphatic encysted Tumours. Communicated to Dr Duncan, in a Letter from Dr Charles Bisset, Physician at Knayton, Yorkshire.

In the course of my practice in England, two cases have occurred of a white encysted and somewhat painful tumour, which contained a clear ropy lymph, with some gelly-like humour, and several hydatides of different sizes, containing a similar lymph. Each of these tumours was
was formed upon the tendinous expansion of a muscle, and this formed the base of the cyst. The first that fell under my observation was formed upon the lower portion of the exterior oblique muscle, adjoining the spine of the ilium. The patient was a stout man, about thirty years of age. The tumour was opened; the exterior portion of the cyst was almost extirpated; a profuse discharge ensued, which, for some time, was attended by a symptomatic or purulent fever; a complete cure was accomplished; but, in three years after, the patient died consumptive. The other tumour was formed upon the biceps muscle of the thigh of a healthy young woman.

This species of encysted tumour, may, with some propriety, be termed lymphatic; and, though it should seem not to be a very extraordinary occurrence, yet it is not mentioned by any author I am acquainted with. The following uncommon case apparently arose from a tumour of this sort, which, I suppose, had formed upon a portion of the interior surface of the muscular coat of the colon, at the middle of the great arch, and was attended with great danger, even after bursting into the cavity of the gut.

Q 3

Mrs
Mrs H—— of Coatham, in Cleveland, aged about thirty, naturally strong and healthy, was attacked, in the beginning of summer 1780, with jaundice, attended with an obtuse pain immediately above the umbilicus, which, in a short time, was carried off by moderate doses of opening pills, consisting chiefly of aloes and soap. At the onset of that disease, she was advised by a neighbouring woman, to drink pretty freely of the decoction of the fresh undried roots of Burdock, which, in the patient’s opinion, contributed not a little towards the recovery of her health.

Towards the end of November following, the obtuse pain, a little above the navel, returned, and gradually increased; but it gave her no material disturbance till the beginning of March 1781, when that local disease became more troublesome, and began to affect her health. Hitherto the catamenia were regular, but rather scanty. It is also proper to observe that she was married, but has had no children.

On the 9th day of May following, when I first visited this patient, there was some degree of tension immediately above the umbilicus, and in the lower portion of the epigastrium. She had
a constant, uniform, deep-seated pain in that part, and could not bear the pressure of a finger upon it. She was exceedingly weak, low-spirited, and without appetite; and her stomach could admit of but a very little light food at a time. She was much affected with flatness; and, from this secondary cause, the pain was sometimes increased, so as to occasion nausea, sometimes with retching and great sickness; and sometimes she was so exceedingly low and faint, that her husband, and others about her, apprehended the most imminent danger.

Though her pulse, on this day, (9th May), was weak, and very little accelerated, yet, as it was equal, and pretty large, and the pain and tension above the umbilicus afforded a strong presumptive proof of inflammation, I directed four ounces of blood to be drawn from her arm; and a whitish fibrous covering, which soon appeared on the top of the coagulum, furnished a manifest proof of the existence of a local inflammation. Yet, as the patient was so very low and weak, and had, after this, in general, a languid and weak pulse, and it was doubtful whether an abscess was not already formed, I thought it improper to order farther bleeding;
and I must own, that it appeared to me, at first, doubtful whether the part affected was the left lobe of the liver, the stomach, or the middle convex portion of the arch of the colon.

As the patient’s urine was highly bilious, so as to tinge linen yellow, and there was a manifest tendency to a jaundice, and she had very seldom a motion without the aid of a laxative draught or a clyster, I prescribed the following laxative apozem.


This was continued for several days, and produced the desired effect. When a nausea prevailed, a cup of coffee proved serviceable; a spoonful of simple mint water, diluted, sometimes allayed that symptom; and when the patient was very low, sick, and faint, the following cordial wine was administered by spoonfuls, either alone, or diluted, apparently with some advantage. Rx. Limonium malum assimatum, et in fruistula fec-
tum, Croci Angl. incis. drachmam unam, vini albi Lysonensis bullientis libras duas. Mace-
rentur per horas quatuor, et colaturae adde facch. albiff. fescunciam.

Whey, and balm-tea, lightly acidulated with lemon juice, were her common drinks; but as she had but a small degree of fever, and her tongue was moist, and pretty well coloured, her thirst was not great. The affected part, after being blistered, without any advantage, and healed, was embrocated two or three times every day, with a mixture of equal parts of fpt. Mindereri, and oil of sweet almonds, and covered with flannel. This was directed to be applied with as much pressure as the patient could bear, with a view of bursting the supposed im-
posthume.

On the 26th, the patient became affected with vehement pain at the seat of the disease, and in her bowels, attended with an obstinate constipation. Clysters and the former laxative apozem, with the addition of a small dose of salt catharticus amarus, having proved ineffectual, I directed a clyster of tobacco-smoke to be thrown up, and that the blowing should be con-
tinued till a nausea should be excited. This produced
produced a motion, with a great discharge of flatus; and the patient was instantly relieved: and, the same laxative apozem being continued, the patient, early next morning, voided by stool a considerable quantity of gelly-like mucus, with several hydatides of different sizes. The pain in the lower portion of the epigastrium nevertheless continued; and the patient, who could take very little even of the lightest food, was now so weak, that it was deemed necessary to discontinue the laxative apozem, and to keep the belly open chiefly by means of mild demulcent clysters, which, with the aid of small doses of a solution of manna in whey, brought away some of the above mentioned gelly-like substance, and some few hydatides, almost daily for a week. After that, the hydatides disappeared; but the white gelly-like mucus continued to come away at times for twelve or thirteen days longer. The patient, during that period, still continued to be much affected with flatus; and though the tension above the umbilicus was scarce perceptible after the first considerable discharge of mucus and hydatides on the morning of the 27th, yet the patient, for three weeks after that event, had a continual obtuse pain, or some degree
gree of soreness, and sometimes great pain in
that part: and it was remarkable, that, in either
case, the tobacco-smoke clyster always afforded
the most immediate ease; by instantly abating
the pain, when vehement; and by occasioning a
total and speedy discharge of flatus, when this
prevailed. These good effects, which were al-
most instantly produced by blowing up tobacco-
smoke till it excited some degree of a nausea,
induced the patient to have this operation
repeated sometimes twice a-day. Whether any
purulent matter was mixed with the mucus and
hydatides that were first voided, or not, I can-
not say, as I did not see these; indeed the pa-
tient’s nurse declared in the affirmative; I
know, however, that no pus appeared among
some of the succeeding discharges of the white
gelly-like mucus which were shown me.

The patient’s stomach was so delicate, par-
ticularly after the first discharge of hydatides and
mucus, as to admit only of the mildest deter-
sive alterative medicines. As she thought the deco-
cction of the rind of the recent undried root of
burdock had been very serviceable to her under
the former icteric affection, with an attendant
deep-seated pain above the umbilicus, and as no
alterative
alterative medicine can be milder, I approved of her resuming it under the present disorder. She drank a small tea-cupful of that decoction three times every day, for a month or upwards from the first appearance of the above extraordinary dejections; and it was apparently of great service to her. And almost the only food she took during that period, was new milk curdled with a little fresh runnet. She took the curd while it was light, with the whey in it, and drank the whey that separated spontaneously from it. In this manner it is an exceeding light food; and it agreed much better with her than chicken-broth, or any other light food she had tried; and by the end of July her health was pretty well re-established.

As no part of the mucus, nor any hydatides were ever ejected by vomiting, though the patient vomited sometimes, it is most probable, that a cyst had been formed at the middle of the great arch of the colon, on the inside of its muscular coat, which contained that matter, and that it had, partly from the effect of the first tobacco-smoke clyster, burst into the cavity of the intestine.
From the effects of the tobacco-smoke clysters, in this case, it may be inferred, that the same remedy will prove of signal service in flatusulent colics, provided always that the blowing be continued till a nausea be excited. And I am persuaded, that, in the iliac passion, when it is not incurable, it is the most efficacious remedy yet known; at least after bleeding, and the exhibition of a full dose of a suitable purgative, that is retained, and of sweet oil. It is also most probable, that this easy remedy would be of the greatest utility in a true tympany.
IX.


December 5, 1782. Mr W. H—, aged 48, became affected two months ago with the usual symptoms of catarrh, arising from accidental cold, to which he has been often liable. Cough, hoarseness, and abundant expectoration were most urgent with him. To these, soon after acceded (sometimes blended with, but generally distinct from the phlegm expectorated) a considerable quantity of a very white and solid sub stance, of different degrees of tenacity, and assuming very various forms, similar for the most part to numerous ramifications, derived from one common trunk. With regard to the sensible qualities of this substance, he only remarks its supplying his mouth with a constant sweet taste. Heat and flame applied to it in a recent state, excite a remarkable crackling, till the fluid parts are evaporated, when the residuum exhibits
bits the surest test of inflammability. Chemical experiments prove, that acids and spirits condense and corrugate it powerfully. Alkalies and their compounds dissolve it gradually, whilst lime-water alone becomes a most perfect menstruum. He always excretes it liberally in the morning, and generally effects its discharge by the mere irritation of a slight hem; rarely, if ever, is it the consequence of any violent effort; that of coughing, though frequently occurring, has no direct influence over it. In quantity, it has within these eight days diminished sensibly, excepting last night, when he brought up a large ramified piece, and found his breast instantly free from a painful degree of oppressive constriction. Mr H— has lately experienced a trivial uneasiness in the first joint of his great right toe, but with no tumefaction nor inflammatory arthritic splendour. It still, however, continues a little painful to him, but does not in the least impede his usual and necessary motions. Bowels rather constipated. In other respects, his general health has long been, and still remains very perfect. Habit of body neither particularly slender nor corpulent. Mode of living always temperate, and laterally exceedingly abstemious.
The palliative and curative indications in this case were,

I. To promote the ready discharge of this substance. And,

II. To anticipate and prevent its future abundant generation.

Mr Hamilton, a very eminent surgeon, had employed a vomit in the incipient state of this disease. He afterwards directed a mass of gum pills, with rhubarb and soap; also the use of lime-water, and frequently to inhale the vapour of warm water from Dr Mudge's late invented apparatus. To this I have added a slight emollient solution, with that of the native balsam of Tolu, and wished him to take liberally a certain stimulant expectorant, the ammoniacal scillitic mixture. Various demulcents, in which the sweet and the mucilage were intimately united, have been occasionally employed, and always excited a more profuse and immediate discharge of this peculiar substance. But above all remedies, as especially responsive to the second indication, I have begged him cautiously to guard against any violent exertion of voice, or long exposure to the cold air of this season. Neither of which injunctions, as regulator of this
this part, it is altogether in his power to comply with; and to the combined influence of these powerful causes, inducing an increased degree of absorption and evaporation from the bronchial vessels, may the presence of Mr H—'s disease be rationally imputed. For unquestionably the form and figure of the matter discharged depend upon those of the parts on which it is deposited, and where, from the above contingencies, it has an opportunity to imitate in its appearance the vessels themselves. Hence it was anciently believed, that in confirmed phthisical cases, the lungs might be thus separated and discharged. But modern observations undeniably prove a different doctrine. The late celebrated Professor McLaurin used frequently to present substances very similar to the bronchiae, which were always imputed to the inspissation of the natural mucus adhering to the ramifications of the trachea, the thinner parts of which mucus being carried off by the constant current of air, the remainder adapting itself to the shape of the vessels, would become more consistent and viscid. Mr H— is also recommended to wear the warmest clothing, a flannel-shirt, &c. and to employ a diet rather more generous.
nerous and agreeable to his former habits. The above state of Mr H—'s case was particularly regarded by my much revered and most inge-
nious preceptor Dr Cullen, from whose letter I shall select the following observations: “My o-
“pinion is, that the excretions in Mr H—'s 
“case are quite analogous to those membranes 
“which are found lining the trachea in the 
“croup, or as we name it, the cynanche tra-
“chealis, or as it has been named by the prin-
“cipal writer upon the subject, the angina po-
“lyposa. Such membranes are perhaps the 
“same with those always formed on the exter-
“nal surface of the lungs, and other viscera af-
fected with inflammation. From these consi-
derations, it appears, that in all cases, and, a-
mong the rest, in the case of Mr H—, those 
“membranes are the effect of inflammation; 
“and though their nature was that of an inspif-
fated mucus, even that must be imputed to 
“an inflammatory state of the bronchiae, which, 
“as I judge, takes place more or less in every 
“catarrh. The case therefore must be treated 
“by the ordinary remedies of catarrh, that is, 
“chiefly by moderating the inflammatory dia-
“thesis, and by taking off the determination to
"the lungs. In every respect the case has been "hitherto judiciously treated; and had it not "been for the patient's being frequently expo-"sed to cold, he would have been relieved be-"fore now. I shall only offer a few remarks "on the measures you may still pursue. I "think a small bleeding might now and then "be useful, and the proper times you will judge "of, by increased frequency or hardness of "pulse, by difficult respiration, drier cough, or "pains about the thorax. In like circumstan-"ces, a blister between the shoulders, or on the "breast or sides might be useful; and a con-"stant pea-issue or feton, I think very advisable. "In the affair of demulcents and expectorants,"I need offer you no instruction. Of the lat-"ter, I would avoid all those of the heating "kind. Lime-water will do no harm; but I "cannot believe it can do any good. I have "only to add, that his body ought always to be "kept cool by gentle laxatives, when necessary. "I approve much of his abstemious course; "and what I would especially and most earnest-"ly inculcate, is his avoiding external cold."

May 1, 1773. Mr H—'s disease has been "aggravated considerably within these two months,"
the coagulable substance being excreted abundantly, not only in its firm consistent state, but in a soft gelatinous one, very sweet and disagreeable. In the morning this laft generally takes place, and it assumes a more solid form towards night. He had a slight arthritic paroxysm three months ago, which relieved his peculiar symptoms.

Previous to the bringing up any large piece of lymph, his cough is remarkably troublesome and onorous; but after this is effected, he continues free from complaint for several hours. His regimen has been strictly antiphlogistic. He always finds himself best, when employing active exercise in the open air, his cough being then not in the least irritating. He has taken freely a saline scillitic mixture, with frequent small doses of vinum antimoniale, though he always found his cough much and immediately excited by them. He had a large issue made in each arm, which discharge abundantly. He has been repeatedly bled, but did not experience any sensible benefit from that evacuation. His blood was always fizy. He observed his issues had, upon April 25th, become nearly dry. The next morning, as usual, he went abroad early, and exposed himself all day to the influence of a keen
keen cold air. In the evening, he was seized with incessant cough, most urgent dyspnœa, and a sense of oppressive tightness at his breast. At last, with difficulty, he brought up a large minutely branched piece of lymph; but this gave him no relief. His head, from the violence of coughing, became affected with very acute pain, and a degree of delirium immediately succeeded. Fourteen ounces of blood were instantly taken from the arm, and a large highly stimulant blister applied betwixt his shoulders. Saline, antimonial and mucilaginous remedies were also exhibited. The effects of these attentions were to mitigate all his inflammatory symptoms, so that the next morning he experienced a relief far exceeding his most sanguine expectations. His bowels were open. Excepting a degree of troublesome irritation to cough, he has continued very free from complaint, no appearance of lymphatic matter having occurred in any form since the above urgent affection. At the particular request of Sir James Lowther, Mr H—'s case was now laid before Dr Warren, in consequence of that gentleman’s previous attention to the subject; particularly his having related a similar instance of bronchial polypus in the London Medical
Medical Essays. The Doctor prescribed three pounds of lime-water, and twenty drops of the lixivium saponarium, to be taken twice a day.

October 6. He has, in the course of this summer, remained tolerably free from disease, regaining his natural strength and alacrity in action, rarely for months excreting the smallest portion of coagulable substance; and when he did, it was always during the prevalence of a keen north-east wind, and with no remarkable difficulty. Upon the accession of a season less temperate, he gradually experienced a sensible aggravation of his inflammatory symptoms, his cough becoming more troublesome, and lymphatic matter exceedingly abundant. Sometimes its excretion was effected with almost an universal convulsion; at others it came up very easily. Relative to its consistency, a considerable variety obtained. In the morning it was much mixed with mucus, and accurately broke down. In the evening it assumed a solid fibrous appearance, imitating pretty exactly the circumstances of the preceding winter, but with greater potency. Lately he has brought up a large quantity of very thin pieces, most minutely ramified,
mified, and irregularly jagged at their extremities, containing very little lymph, and taking the form of a denudated vascular coat.

With regard to the treatment. Mr H—— has strictly obeyed the former regimen. He has employed a great variety of demulcent pectorals, cautiously avoiding the stimulant ones. Blood-letting and blistering were occasional remedies. The latter always gave remarkable relief, sensibly diminishing the quantity of the substance excreted, and obviating the oppressive constriction at his breast. His issues now discharge freely, and a blister is kept open betwixt his shoulders. The lixivium was taken regularly in lime-water for several months, and the dose gradually increased to fifty drops, with the effect of impairing his appetite, and producing nausea at stomach. As his bowels have been lately much constipated, a course of habitual laxatives became expedient.

Such is the character, and such the treatment of this affection; and, in apologizing for so tedious a detail of circumstances, I have only to observe, that it was my wish to accumulate those facts which might in any degree convey an idea of that peculiarity in disease they so certainly establish.
establish. I have sent, with this letter, a small piece of recent, and one of the dried bronchial polypus.

*Extract of a letter from Dr Dixon, Oct. 15. 1784.*

In the course of the preceding spring and summer, Mr Harrison's inflammatory symptoms were governed, in the degree of their urgency, by the state of the season. During the prevalence of frost or cold, and moist weather, his pulmonic affections distressed him incessantly; cough, dyspnœa, and sometimes acute pain of side, with oppression at breast, becoming remarkably violent, and his pulse very frequent and tense. He complained also of headach, with giddinesfs, so as to prevent his retaining an erect posture. Blood then taken always assumed an inflammatory aspect, and the loss of it generally procured considerable relief. His aversion to this evacuation, and that of blistering, made it eligible to prescribe various other substitutes. Those of habitual laxatives, and occasional saline, yet active purgatives, were most beneficial. To their frequent employment, he very justly imputed the prevention of those aggravating
gravating circumstances, which, for the most part, took place from his exposure to cold, or were the usual effects of long protracted disease. In the month of August he was the most free from topical inflammation, and rarely, if ever, brought up any firm portion of lymphatic substance, and then easily, without any violent effort, or remarkable dyspnœa. His issues continue to discharge abundantly, but he thinks they have no sensible influence upon his phlogistic diathesis. Within this week past, he has excreted several small ramifications, but with no difficulty, and from the exhibition of his usual cathartic, has derived considerable benefit.


History of a Case of Illness, in which great benefit was derived from the application of a Blister.

By Mr Daniel Forbes, Surgeon at Dornock.

On the 23d May last, Mr M— was seized with a most violent iliac passion, which he attributed to sitting on wet grass. Next day I was sent for to see him. When I came, I found him labouring under a most disagreeable stercoreaceous vomiting, with sanguisculus, acute pain reaching from the os ilium, on the right side, to the umbilicus, pulse 98, skin hot, tongue white, with a great inclination for drink, but nothing would rest on his stomach. He was bled to the quantity of sixteen ounces, and emollient injections were ordered to be administered every half hour, but these were thrown up by vomit. After giving four of these injections, I ordered some of a more stimulating kind; these passed as the former. Injections of tobacco-smoke were then tried, but gave no relief. As there were
were evident marks of sanguine congestion, saline purgatives were ordered, premising twenty grains of falt of wormwood and juice of lemons in the state of effervescence, with twenty drops of thebaic tincture; this likewise failed, but was repeated in an hour after, with the addition of ten drops more of the thebaic tincture, and twenty grains of musk, on account of the in-gultus, which now was very violent; this gave relief for half an hour, but was then thrown up. He was ordered to be bled again to the quantity of fourteen ounces, and a large blister to be applied all the way from the umbilicus to the os ilium of the affected side; in half an hour after the application of the blister, two grains of solid opium were given, and, ten minutes after, about four ounces of the decoctum tamarindorum cum triplce senna. This rested on the stomach, and no sooner did the blister begin to operate, than the pain remitted, and, in a few hours, he had two loose stools of a bilious complexion, and soon found himself much relieved; he fell asleep, and got about four hours sound sleep, and wakened quite refreshed, and had no further complaints; but, for ten days, he complained of great weakness. He was ordered to keep his
his extremities warm, to wear a flannel-shirt, and occasionally to take gentle doses of tartarum solubile, to live sparingly, and, in order to strengthen the tone of the stomach, and habit in general, the Peruvian bark was recommended, with riding and the cold bath, by which means he now enjoys perfect health.

XI.

Observations on the Dysentery, as it appears among the Negroes on the Coast of Guinea. By Mr Robert Atchison, Surgeon.

On all parts of the coast of Guinea, the most prevailing disorders are, a flux and fever. These are everywhere to be met with in slave-vessels, but do not in an equal degree obtain in every place, and in every season of the year. On that part of Guinea which is called the Windward Coast, where grain is the chief article of food, the slaves are of a pretty strong and hardy constitution, consequently less subject...
subject to disorders than any others, so that the
same causes which, in the Bite of Benin, would
instantly bring on a most violent putrid flux,
will scarce be sufficient here to produce the com-
mon symptoms of a fever. In all parts of the
Bite of Benin, such as Benin, Bony, Old and
New Callebar, where grain is not used, and
where the chief food is either yams, (a sort of
potatoe), or fish, and where few or no exertions
of body are requisite to supply the wants of na-
ture, the slaves are of a very weak habit of bo-
dy, subjected to disorders in a most remarkable
degree. In the nature of the country too
there is a vast difference. The first is mostly
high and mountainous, the latter low and marshy
throughout. All vessels sent out to the coast of
Africa, have places prepared for the purpose of
sleeping-rooms for the slaves in the night. These
are, for the most part, so crowded that the heat
and perspiration becomes excessive; and, after
a course of time, brings on that state of debility,
which, in my opinion, is the great source of the
two disorders above mentioned. That relaxa-
tion is the genuine cause of these, I think ap-
ppears both from what is observed above, and
from the following considerations. When slaves
are first brought on board a vessel, they are generally of a pretty full state of body, and, so long as they are not crowded, and overheated, remain healthy and well; but as the numbers increase, and the rooms by degrees become warm, a thinness and relaxation arises, and then fevers of the bilious remittent kind, sometimes accompanied with the morbus mucofus, but oftener the dysentery itself, take place. That this last is infectious, no one will doubt, but nothing so much disposes to produce and support it as a debilitated state of the animal system.

Of all people on the African coast, none are so subject to the dysentery (and the worst kind of it) as the Bute slaves. Out of the cargoes of several vessels, consisting of six or seven hundred each, one buried two hundred and fifty, one two hundred and twenty, one an hundred and fifty, one sixty, and our ship eighty-two slaves, most part of them having died of this terrible disorder. The dysentery generally makes its first appearance in the vessel in a very mild manner. The stools are, in the beginning, of the mucous kind, voided in small quantities, attended with griping, often with a certain de-
gree of pyrexia, and not unfrequently with bilious inflammatory symptoms. In a day or two they assume the appearance of well digested pus. In this situation, I have known them continue, together with the hectic fever, for many days, and gradually wear off, the stools becoming natural, and the patient recovering his health and strength. But though this may have been, in the beginning, pretty common amongst the cargo, it often happens, that, if the causes exciting debility continue, and the disease has gained a footing in the ship, the putrid dysentery itself appears with all its horrors.
The History of a speedy Recovery after the Operation of the Trepan. Communicated to Dr Duncan by Dr James Gerard Physician in Liverpool.

D—— H——, aged thirty, by trade a brewer, but a moderate drinker, received a blow, on the 2d of July, on the upper and outer part of the parietal bone, by a brick thrown at him, which made a small triangular bruised wound in the scalp. At that time he was in liquor, and under a profuse perspiration was subjected to cold. As there was no symptom of fracture, the wound was dressed superficially on the 3d, and he had a dose of salts. On the 5th, I saw him for the first time, when the appearance of the edges of the wound was clean and healthy. But about the 7th he complained of pains in the head, for which he was bled largely, and took a dose of salts. Notwithstanding this,
this, the pains increased so much, that, on the 10th, it was thought proper to examine whether the cranium was not fractured. The wound was therefore dilated for that purpose, in a triangular direction, preserving the scalp, which was turned back. When this was done, a triangular piece of the cranium, not much larger than the head of the trepan, was observed to be depressed. It required however two perforations to disengage it, the fracture of the internal table being larger than the external. One edge of it had wounded the dura mater, and even the brain itself, insomuch that a small portion was discharged.

The wound was dressed up lightly, approximating the edges of the scalp moderately towards each other, and making a light pressure by lint in the centre upon the brain.

On the 11th, he was easier; he had passed a quiet night; and his pulse did not beat more than an hundred strokes in the minute; but it was full and strong. On this account, it was determined he should be blooded again, and have his body kept open. On the 12th, the dressings were easily removed, the part looked clean, and there was very little inflammation or protrusion.
protrusion of the brain. The pulsation, however, was very strong, and synchronous with the pulse, which I have always found it to be. On the 14th, the patient was blooded again, to guard against protrusion, by moderating the impetus of the blood in the head; and as there was no appearance of slough from the dura mater, while granulations were appearing on it, all intermediate dressings were removed, and the lips of the wound were drawn nearly together by sticking plaster external to it, while ome more pressure was made by lint and bandages between the edges of the wound. No bad symptom or inconvenience arising in consequence of this, the edges of the wound were every day drawn closer together by sticking plaster, the divided part being covered by strips of lint spread with wax and oil. On the 14th and 15th, the patient sat up some hours. On the 24th, he came down stairs, and even walked out of the house, which he has continued to do ever since. On the 7th of August, he walked some miles without any inconvenience; and by the 14th, the part was entirely healed, and the patient in health, strength, and spirits.
Extract of a Letter from Mr Ivie Campbell, near Inverary, to Dr Duncan, giving an Account of a sewing Needle lodged in the Breast of a Woman being removed by Incision.

Though, from your extensive practice and correspondence, you must have met with many instances of foreign substances lodged in different parts of the body, yet you will forgive me, I hope, for communicating the most extraordinary case of the kind that has occurred to me.

In November last, Margaret Stuart, aged twenty years, applied to me, complaining of a tumour in one of her breasts, which she suspected contained some pin or foreign substance. Upon examination, I found, in the internal or left side of the right breast, a tumour about two inches in length, which felt to the touch like the size of a thick goose-quill, suspended in a perpendicular direction, about two inches from the
the nipple, to which the middle of the tumour was nearly opposite. By gently pressing upon either end of the tumour, the other was elevated above the surface of the breast, in the form of a small pea; and when the upper end was pressed, she felt a slight pricking pain at the lower end. At each end, one could plainly perceive a hard substance, which seemed to lie immediately under the skin; but from the natural convexity of the breast, the middle part felt as if lodged about three quarters of an inch within the substance of the breast. When the breast was in its natural position, the tumour was only perceptible by a small elevation at each end, just discernible to the eye.

Fully convinced that some foreign substance was lodged in the part, I proposed cutting it out; to which she readily consented; and, by a small incision on the lower end of the tumour, I extracted a common sewing needle, two inches long, perfectly entire, and free from rust, only become a little blackish. There was no pus or other matter contained in the tumour; and by dressing superficially with simple cerate, the wound healed in a few days.
Is it not surprising how the needle should have found its way there, and have remained perhaps for years in so sensible a part, without occasioning the least pain or uneasiness, for she only discovered it by accident last May? Possibly she swallowed it when a child, but remembers not that such an accident ever happened her.

I would have sent you the needle; but the gentleman in whose service the girl was, asked it of me, to send to Dr Monro, with whom he had occasion frequently to correspond.
XIV.

History of a Case of Ileus, in which a considerable Portion of the Intestine was voided by Stool. Communicated to Dr Duncan by Mr William Dougall Surgeon at Keith.

Maria Edward, aged sixty-seven years, naturally strong and healthy, a married woman, in very low circumstances, in Fochabers, was seized with a violent colic, or ileus, in the end of October last year. All the common remedies were diligently employed for several days, to no purpose, except blood-letting, which was omitted on account of her being much reduced by the general scarcity of provisions. Nothing relieved the vomiting, pain, and constipation. About the sixth day of her illness, Dr Livingston being then at Gordon Castle, made her a visit; and, on finding a hiccough come on, with every symptom of approaching death, he considered her case to be hopeless, yet omitted no means which seemed to give any chance for relief,
COMMENTARIES. 279

relief, but with the success only of procuring some stools. Several days thereafter, when the use of all medicines was given up, a looseness came on naturally, which continued four or five days, and relieved her of all threatening symptoms, excepting her extreme debility. On the last day of this looseness, the seventeenth of her disease, she voided by stool a piece of the ileum, connected with its corresponding portion of mesentery, eighteen inches in length. After this evacuation, she became almost free from pain, but extremely weak, and lay continually in a supine posture, until a day or two before she expired, when she became very restless, and tossed much. She died on the thirty-sixth day from her first attack. About the time of her death, she mentioned, as the cause of her disorder, her breakfasting that day of its attack on cold turneps, which had been boiled the preceding day, and having eat them without pepper, and probably with pease or barley-meal bread.

As the piece of intestine had been sent me, I had the curiosity to see the woman twice before she died. She had a violent thirst, with a small contracted pulse, about 120 in a minute. I directed lime-water with milk for drink, which seemed
seemed to agree well with her, and quenched the thirst; yet she gave it up for wine and thin broths, which were daily sent her by the Dutenys of Gordon, in her great humanity, who would have omitted nothing for her support or comfort; but this was all her stomach could receive, and that in very small quantity.

At the Duke's desire, the body was examined by Dr Stephen of Elgin and me, when we took notice of the following preternatural appearances.

Before the body was opened, we observed it exceedingly emaciated, especially the abdomen, which seemed to adhere to the vertebrae; but neither this, nor the state of the omentum, almost shriveled to an empty membrane, could surprize us, when we knew the very small quantity of ingesta taken for several weeks past, and her expence by the diarrhoea. The stomach too was contracted nearly to the size of the intestine. But what seemed more extraordinary, the greatest share of the intestines were pressed down into the pelvis, probably by the straining of the diaphragm and abdominal muscles in tenesmus. The liver, spleen, and pancreas, were all found; but the spleen was scarcely a third part
part of its natural size. The gall-bladder was
distended to more than twice its natural big-
ness; it was full of bile, but no stone or other
obstructing matter in it or its duct.

We traced the intestinal canal from the pylo-
rus to the colon, dividing the mesentery as we
proceeded, but found nothing to account for the
phenomenon of the piece of gut evacuated.
Many different parts of the intestines had a livid
and almost gangrenous appearance, yet admitted
of being blown up with air. At last we discovered
a part of the ileum, about five or six inches, ad-
hering so closely together as not to be separa-
ted. This was within a few inches of its opening
into the colon. Dr Stephen then cut open
the intestines the whole length with scissors,
and with no small caution discovered a very
great constriction on the gut, where it appeared
there had been an intus-susception of the part
carried off, whether in consequence of gan-
grene, or the reverse; whatever had been the
cause, there seemed evidently to have been a
division of the gut, and an union of the two di-
vided ends by inflammatory adhesion. The
striction at the union was such as only to admit
the passage of a little finger with difficulty.

XV.
XV.

History of an uncommon Enlargement of the Abdomen, from an Affection of the Kidney. By Mr Philip Martineau, Surgeon at Norwich.

A poor man was admitted into the Norwich Hospital, with a large tumour on the left side of the abdomen, in which there appeared a fluctuation. The man had been in the house two years before for the same complaint, according to his own account, and had been tapped. Since that time, till within two or three months, he had continued in very tolerable health. He was now however much emaciated, and had a very cadaverous appearance. After being a short time in the hospital, it was thought proper to draw off the fluid contained in this supposed encysted tumour. A puncture was accordingly made with a lancet, and a probe introduced. A small discharge of a bloody liquor followed; but it evidently stopped when only a small proportion of the contained fluid was evacuated. In
the former operation, two years before, ten
pints of a similar bloody liquor were drawn off.
I requested, when the man should die, that I
might open the body. This event happened in
two or three days; and the following were the
appearances discovered on dissection.
Upon laying open the abdomen, I found a
large tumour occupying almost all the left side,
and consequently pushing the intestines to the
right. The opening which the lancet had made
was discovered, which must have passed into the
abdomen, before it got into the tumour; con-
sequently any alteration in the external tegu-
ments must have varied the position of the op-
ening through the tegument into the tumour.
This accounted for the stoppage of the discharge,
and also for a considerable extravasation into the
abdomen, which I found on opening it. This
tumour received a covering from the perito-
næum, which passed from the upper integu-
ments half down the left hypochondriac and i-
liac regions; then it was reflected upwards over
the tumour, and going over the other side, it
took its usual course over the spine, to form the
mesentery. Upon the upper part of the tu-
mour was the colon, attached over the whole
length
length of it. The viscera, in general, put on no very particular appearance. My pursuit now was, to discover what this very large swelling was. I therefore carefully dissected it out, beginning where the peritoneum took its reflection. I now found no kidney; and a former case suggested to me the possibility that this very tumour might be the kidney itself; and so it proved; for I immediately passed ligatures on the aorta and vena cava, above and below the emulgents. I then traced the vessels to the kidney on the right side, which I found in a perfect state. Without making a separation of the vessels to the kidney, I left them all entire, and traced them on the diseased side, and found them going to this tumour, which I dissected out, and by this means I possessed the aorta, vena cava, and emulgents on both sides, going in one to the kidney; and in the other to the kidney also, but in the diseased and enlarged state already mentioned, capable of containing about eight pints. It was my intention to have injected the vessels, but business prevented my doing it for some days. When I made the attempt, they were in too tender a state to contain the wax. I have, however, made a very tolerable
tolerable preparation, and one which sufficiently evinces the disease. The ureter on the left side was quite obliterated; and what was astonishing to me, on the right not at all enlarged. The fluid seemed contained within the pelvis of the kidney; and where the artery divides, there was a considerable ossification.

What was the remote cause of this disease, I can hardly venture to guess. I never saw the man, to inquire what were his first symptoms; and probably no question I should have asked, would have led to any information. The man thought he had a dropsy, and every answer would probably have had a reference to this belief. But it is certainly useful to every practitioner, to be acquainted with every change that may take place in any viscus. The one related is very extraordinary, and may be called *hydrops renis*. I do not recollect any instance of this affection mentioned, except by Lieutaud.
XVI.

The History of a Case of inveterate Dropsy, successfully treated, with Observations on the Advantages from combining Cathartics and Diuretics, in a Letter to Dr Duncan, from Dr John Grieve, Physician to the Russian Army at Nizhny Novgorod.

The obligations you laid me under, while I pursued my studies at the University of Edinburgh, were of such a sort, that I should esteem myself very ungrateful, if I did not take an opportunity of expressing the sense which I shall always entertain of them, and of communicating to you any medical observations which I have an opportunity of making.

The physician to an army, especially in a foreign country, has, perhaps of all others, the best opportunity of improving medicine. By being conversant with disease in different climates,
mates, and in different temperaments, he becomes familiarly acquainted with the various appearances it assumes; and by comparing his own practice with that of others, he is furnished with suggestions and analogies, which, to a philosophic observer, become the path to useful knowledge.

I will not flatter myself with having profited sufficiently from this circumstance; but as I have succeeded in the cure of some difficult cases, I think it my duty to communicate the result of my practice to you, whose curiosity and successful industry, in the search of medical knowledge, are already conspicuous over Europe. And though I cannot boast that the remedies I have employed are new, yet the particular combinations of them which I have made, and the difference in their action which from thence arises, have either been not at all, or not sufficiently attended to.

The case I mean to make the subject of this letter, is one of dropy, on which I was consulted about six months ago. It was that of a lady of about fifty-two years of age, of a phlegmatic temperament of body. I found her labouring under ascites and anasarca, conjoined in their most
most advanced stages. Her belly, which rested upon her knees, was swollen to such a size, that her two arms, in compassing it, could not be brought to meet. Her extremities were distended in the same proportion, and the difficulty of breathing, palpitations of heart, threatenings of suffocation, and frequent startings, accompanied with violent shrieks, gave me reason to believe, that besides the load of mucus with which her lungs were charged, and of which the expectoration was extremely difficult, there was also a considerable collection of water in the cavity of the thorax.

This opinion seemed to be farther confirmed, by the congestions in her head. Her eyes seemed to be pushed out from their orbits. Her face was of a deep red and livid colour; and so great was the comatose state consequent upon these symptoms, that she could not prevent herself from sleeping even while she related to me her case. From these circumstances, added to the deep snorting sound which she uttered in her sleep, her friends, as well as the medical gentlemen who attended her, were in expectation every moment, that an apoplectic stroke would put a period to her sufferings.
It would be superfluous to enumerate the other symptoms which took place here, and which are common to this disease, such as thirst, scarcity of urine, stopped perspiration, &c. It may be proper, however, to add, that her mouth and tongue were ulcerated in different parts, by the acrimony of the saliva; a circumstance, which, while it rendered the use of food inconvenient, demonstrated at the same time, to what a degree the general mass of fluids in her body were corrupted. Her disease had been gradually advancing to its present state for about three years, though for a considerable time before that, she had been subject to uncommon corpulence and indolence. She had used various medicines of the diuretic kind, such as nitre, horseradish and parsley-roots, &c. but without any advantage.

Before I proceed to the method of cure which I employed, I must beg leave to make a few observations on the influence of climate, and manner of life, in modulating diseases.

In Great Britain, where the seasons are generally of a moderate warmth, where frequent winds purify the atmosphere from superfluous humidity, and where the custom of the country...
disposes even the sofer sex to exercise themselves in the open air, perspiration is seldom long interrupted, and consequently the diseases thence resulting, though they may be equally frequent, yet they are neither of so long continuance, nor are accompanied with such obstinate symptoms as are to be seen in some countries on the continent. This is particularly applicable to Russia. Here the cold weather, which continues for about nine months in the year, gives an effectual check to those agreeable exercises which invite the inhabitants of more temperate climes to the open fields.

The people of rank, indolent from necessity, are shut up, during the greatest part of that time, in stove-heated rooms, from whence the external air is industriously excluded, and where there is at once a surcharge of phlogiston from the stoves, and from the effluvia of their own bodies. Even when they ride out, with the exception of a small part of their face, they are everywhere accurately covered with furs. But the excretion of the perspirable matter, and the evolution of the phlogiston, can only be duly performed, when the air has free access to absorb them. These people are therefore subject to all those
those diseases of which a languid perspiration, and a defect in the evolution of the inflammable principle, are naturally productive.

Hence it is, that inveterate ulcers of different kinds, obstructions of the viscera, and the diseases consequent upon these last, such as dropsy, &c. are more frequent among the people of rank in Russia, than among those of any other country. And were not the above causes, in some measure, counteracted by the frequent use of the vapour-bath, which gives a free evacuation to their corrupted humours, the diseases which they produce, would, I have no doubt, be at once more universal, and more destructive, than they really are.

The influence of the above causes is equally conspicuous in the diseases of foreigners, before they are accustomed to the climate. Hence in youth, while the blood is yet strongly determined to the lungs, they are subject to frequent pneumonia, haemoptysis, and their consequences, while in the more advanced periods of life, when the balance of the circulation is changed, they become liable to icterus, hypochondriasis, &c. according to the difference of their original constitutions; and the obstinate attacks of
erysipelas, to which even the strongest are subject, sufficiently demonstrate a retention of acrid matter, and consequently a defect of the general excretions.

But, to return to the case, my first, and what appeared to me to be the most important object, was to remove the congestions in her head and breast, and, at the same time, to mitigate the nervous symptoms. For these purposes, I employed the following medicines:

Rx. Gum. affae foetid. drachmas tres.
   Sapon. venet.
   Extrait. myrrh. aquos. sinjulorum sesquidrach.
   —— aloes, drachmam unam.
Subigantur bene invicem, et cum aq. simp. q. f.
   ut ft. massa pilularum. Ft. pilulæ sinjulæ pond.
   grana quatuor. D. S. Capiat tres mane et vel-
   pere, plus vel minus, sic ut alvus bis saltem de
die respondat.

Rx. Tinæt. succin. volat.
   Liquor. anod. Hoff. sinjulorum drachm. tres.
   Effent. aromat.
   Extrait. cort. Peruv. sinjulorum drachmam
   unam. M. ft. elixir.

D. S.
D. S. Capiat guttas triginta ex vino Rhenano, quandocunque palpitation cordis vel suffocatio minantur.

For the ulcers of her mouth and tongue, I prescribed the following gargle:

℞. Alum. crud.
Suc. japonic. singulorum drachmam unam.
Mel. rofar.
Tinct. rofar. cum acid. vitr. singulorum secundam. M. ft. gargarisma.

D. S. Lavetur os hoc gargarismate sæpe sæpius in die.

These medicines were productive of the most happy effects. The pills, by at once loosening the belly, and increasing expectoration, gave ease both to her head and breast, and they, at the same time, united with the elixir in soothing the commotions of the nervous system. This last indeed seemed to act as a specific in these cafes. A few drops of it taken on the approach of the nervous flutterings, were effectual in preventing them.

Thus, in about a week from the first use of these medicines, the palpitations of her heart, the threatenings of suffocation, and the sudden frights and startings which were so peculiarly alarming,
alarming; had entirely left her. The ulcers of her mouth were healed up, and it remained only for me to turn my attention to the principal disease. My first design was to make a trial of drastic purges; I even exhibited two of them; but the irregular movements they excited in the nervous system contraindicated their farther use. I had therefore recourse to diuretic medicines in the following form:

R₁. Pulv. scill. arid.
Gum. camph. singulorum scrupulos duos.
——— ammoniac. drachmas duas.
Sapon. Venet. drachmam unam.
Subigantur invicem, et cum syrups pimp. q. f. ft.
masia in pilulas singulas pond. grana quatuor dividenda. D. S. Capiat tres omni bihorio, si ventriculus ferre potest.

R₂. Sal. absynth. semunciam.
—— nitr.
Rad. calam. arom. singulor. drachmas duas.
Baçcar. junip. unciam unam.

Vin. Rhenan. fœquilibrum.
Speciebus prius concisis et contusis superinfunde vinum; dein digere juxta fæcum per nyæhæmæram; cola. D. S. Bibat cyathum subinde,
In this manner she took about ten grains of the squills a-day, without any other inconvenience than a considerable nausea; and this, by acting as a diaphoretic, seemed to determine also the operation of the salts from the urinary passages to the skin. She observed that this was the first time, for several years, that she had known herself to sweat. But there was another effect of these medicines, which more remarkably demonstrated their resolvent powers. A number of warts which had overspread different parts of her body, and which had resisted a variety of external medicines, during the use of these entirely disappeared.

Great, however, as their efficacy may seem to be, though she had now taken them for about

T 4

three

* You will perhaps think that the proportion of medicines employed here is large, especially that of the alkaline salt. I have observed, however, that it may be given in phlegmatic cases, with safety, in much larger quantity than it commonly is; and I have been assured, by an eminent practitioner, that he has used it with advantage in hydropic cases, even to half an ounce a-day, dissolved in a pint of Rhine wine.
three weeks without interruption, they had hitherto produced no sensible change in the state of the hydroptic symptoms. While the quantity of the urinary excretion continued the same, the size of her belly, as well as that of her extremities, seemed rather to be increased than diminished. If not in a more dangerous, she was now in a more miserable situation than before. In place of the insensibility which had accompanied the comatose state, she was now even deprived of sleep, by the excessive pain which the overdistension of the abdomen occasioned. And this, by exciting inflammation, became an object of no small alarm, lest a gangrene might ensue. These circumstances, added to the febrile heats, which now began to give great uneasiness, and which, if not produced, were at least aggravated by the medicines, obliged me to alter my plan, and the following, which I adopted, was attended with the most happy success.

I had observed, from the trials already made, that the most powerful diuretics had not been able to produce any sensible increase of the urinary discharge. I had also learned that drastic purges only added to the irritability of the sensible fibres, without making any considerable evacuation
evacuation of watery humours. I therefore attempted to compose a medicine, which, while it operated at once by stool and by urine, might, at same time, serve to soothe and fortify the nervous system.

The formula I used was the following:

Rx. Resin. jalap. grana octo.
Sal. nitr. scrupulum unum.
— succin. volat. semiscrupulum.
Solve. resinam in pauxillo, mucilaginis gummi Arabici; dein adde
Syrop. simp.
Aq. cinnamon. singulorum semunciam. M.
ft. haustus.

D. S. Sumat summo mane, regimine pro purgante adhibito, et repetatur alternis diebus.

I have never seen, in any case, the power of medicine more conspicuous than in this. From the beginning of her disease, she had not been capable of passing urine, unless when she went to stool. Even the squill pills and diuretic salts had not produced any alteration in this respect. She no sooner, however, began the use of this medicine, than her urine flowed copiously and with ease; and the discharge of watery humours, by this excretory, as well as by stool, was
was so considerable, that her belly each day she took it, was diminished more than an inch and a half in circumference.

In less than a month from the first use of it, all the symptoms disappeared; her belly, as well as extremities, were reduced to their natural size; the pains, formerly so troublesome, ceased, and she walked out on foot with more ease than she had done for several years before. It is now four months since the cure was performed. She continues in perfect health. The bloody piles, to which she had been subject, and which had disappeared during the disease, have since returned, and observe their usual course.

It may seem worthy of remark, that though I increased the quantity of resin in this medicine afterwards to ten, and even to twelve grains, yet its operation was always without pain; and that though the evacuations were very considerable, yet they were never accompanied with any signs of increased debility. On the contrary, she seemed to acquire strength during the use of it. I flatter myself it will be found equally useful in other similar cases; and though some part of the cure may be attributed to the previous use of the squills and salts, yet the hydropical swellings
swellings remained altogether unchanged, till this medicine was employed.

It might now be expected that I should attempt a theory of the manner in which this composition acts. This is difficult, but not unimportant. Speculative inquiries have the function of sound philosophy, when they are circumscribed within the limits of well established facts and impartial observations. I shall only take the liberty of shortly pointing out what appear to me to be the principles upon which its superior efficacy depends.

What must, at first sight, seem remarkable, is, that the diuretic salts should have their action increased by the addition of a resinous purgative. And that a single scruple of nitre, with half a scruple of salt of amber, should, in this form, act with incomparably more effect by urine than three times the quantity of the same nitre had done, even when assisted by a large proportion of alkaline salts and squills, which are both universally ranked among the first in the class of diuretics.

It has often been observed, that, of all the classes of medicines, none is so indeterminate as that of diuretics; that neither any of the individuals,
dividuals, nor any combinations of them, are to be depended upon in cases where a discharge of urine is wanted. And it has been given as a reason for this opinion, that, as the proper action of diuretics is to evacuate the excess of feebility in the blood, and as nature has provided two excretories for this purpose, viz. the urinary organs, and the exhalant arteries on the surface of the body, they promoted the one or the other of these excretions, according to the state of the body and of the atmosphere, at the time of their exhibition. And hence, by a change of circumstances, diuretics became diaphoretics, and vice versa.

If this be consistent with truth, and there are many facts by which it seems to be confirmed, it follows, that, in order to give a certain and definite action to diuretics, we have only to find means of determining from the skin, during the time of their operation. This can, with certainty, be performed by purgatives. The paleness of face, and sense of cold which accompanies their action, is a sufficient proof of the derivation they cause from the surface.

By combining, therefore, these two together, as in the present medicine, a hydragogue is like-
ly to be produced of much greater efficacy than either of them taken separately. The salts disposing to a fluid excretion, and that of the skin being precluded by the action of the purgative, a flow is naturally made to the urinary passages, while that action, by stimulating the intestinal canal, and by consent of parts, stimulating also the whole viscera of the abdomen, at once evacuates the former, and accelerates the functions of the latter.

Perhaps too, in this composition, the salt of amber has a considerable effect. Independent of the action of its saline parts, the empyreumatic oil which adheres to it, may, by exciting the nerves, and thereby giving tone to the system, at once promote the absorption and the excretion of fluid matter.

How far this theory is just, I will not presume to say. My wish will be gratified, if the fact shall be confirmed by future experience; and if the practitioner, who has hitherto been so often disappointed in cases of this sort, shall find in this a medicine of a fixed character, in which he may confide as a certain, and, at same time, a mild hydragogue, the use of which even female weaknefs does not contraindicate.
At any rate, its peculiar efficacy, though but in one case of so desperate a nature, may be a reason why some farther trials should be made of it; and should it even be found in the issue to require the previous use of resolvent medicines, as in the present case, yet still the advantages to be reaped from it in practice may be considerable.

I must now beg you will excuse me for entering so much into detail in relating this case, and especially for the liberty I have taken in offering my own sentiments upon it. The freedom of inquiry, of which you have yourself given the example, is the best apology I can make.
XVII.

History of a Case in which Cataracts in both Eyes were removed by Electricity. By Dr William Knox of the Northern Regiment of Scots Fencibles.

R—C—, aged forty-eight, a gunsmith, some time in the month of March found himself so much deprived of his sight, that he was obliged to give over working. Upon examining his eyes, a cataract was perfectly visible in each. The account he gave of himself was, that for some considerable time he had been sensible of a gradual loss of sight; that lately he had been employed in doing some nice work, but had been obliged to give over from an almost total loss of sight. At first I was greatly at a loss how to apply the electric fluid. After trying several methods, I at length hit upon the following, which answered my expectations.

A director connected with the negative conductor was applied to the back part of his head, while
while the fluid was thrown through the pupil of the eye, sometimes from a wooden, sometimes from a metal point connected with the prime conductor. He has been electrified for some months, sometimes twice, sometimes three times a-day. A very sensible change took place in the cataracts about two months ago, and the poor man was able to return to his ordinary work. Since the change took place, the electricity was once interrupted about a fortnight, without being attended with any bad consequence. There is still in each eye the appearance of a light bluish cloud; so that it cannot be said the cataracts are entirely gone. Upon this appearance no change has been made for upwards of two months, either by using or omitting electricity. It is proper to acquaint you, that, during the greatest part of the time, he has had a drain in his neck; and, on account of a scorbutic eruption (as it is commonly called), which almost entirely covered one of his legs, he took every night a dose of the pil. Plummeri, which entirely removed the eruption. During the whole course, he was put on proper regimen with regard to diet, &c. which seemed the more necessary, as he was of a very irritable habit,
habit, and formerly given to the use of spirituous liquors.

XVIII.

An Account of good Effects from the Vapour-bath in an Hydropic Case. Communicated to Dr Duncan, in a Letter from Mr Darbey, Apothecary to the Infirmary at Manchester.

S——B——, aged twenty-nine, five months gone with child, was, in December last, seized with a cough and spitting of blood, attended with great difficulty of breathing. Several remedies were used, without the least benefit, till the month of March, when she was delivered of a dead child. After that time, her complaints increased; her belly, legs, and thighs, were swelled to a monstrous size; and she made little water. On the 9th of July, she was brought to the Infirmary; but as she appeared in a dying condition, was thought an improper object for admission: but it being surmised, that
she might die on the road, (as she was ten miles from home), if refused, she was received for a few days. An oily mixture, with pulv. e bolo comp. was prescribed to be taken three times a-day. On the 12th, the powder was omitted, and ten drops of tin&. cantharid. were ordered in each dose of the mixture. The 18th, she took pulv. jalap. scrupulum unum, zinzib. pulv. grana decem. The 23d, the powder was repeated. At this time, she continued much the same, except in the spitting of blood, which had left her several days. August 2: a mixture composed of equal parts of oxymel of squills and nutmeg water was ordered; a spoonful of which she took three times a-day for several days, but without any apparent amendment. In the evening of the 14th, she was put into the vapour-bath for fifteen minutes, where she perspired freely. In the morning of the 15th, her breathing was much better, and her swellings less, having discharged a large quantity of urine in the night. The bath was repeated three times a-week, till the 14th of September, when all her complaints were entirely removed. At this time she is taking an electuary of bark, steel.
A Case of Angina Pectoris, from which it would appear that the Complaint is sometimes hereditary. By Dr Robert Hamilton of the 10th Regiment.

In the summer of 1781, while the regiment lay at Tynemouth, I met with a very curious case, which puzzled me not a little.

George Pretorius, from Berlin, a common soldier in the 10th regiment of foot, sent for me in all haste about five in the evening in the month of August.

On entering his barrack-room, I found him in a truly deplorable situation; two of his comrades standing by him, holding back his head as he sat on a bench panting for breath, and as if every gasp would be his last, while the rattling occasioned by these violent efforts made to di-
late the lungs could be distinctly heard several paces from the door of the room.

At first I did not know well what to do, but stood for near a minute a silent spectator of what I saw, even thinking it needless to make any attempts to relieve him, as he appeared to be in the agonies of death. But on his observing me present, and collecting as much strength as he could to speak, he uttered, in accents scarcely intelligible, *Bleed me, bleed me.* Taking hold of his hand to examine the state of his pulse, which my surprise and astonishment till now had prevented me from doing, I found it both weak and small, nor more frequent than natural, though with a sort of tremulous undulation not easily described; whereon I refused to comply with his request. But, on hearing this, he attempted a second time to speak, and uttered in a broken tone the same words.

As I considered him a dying man, and this his last request, I judged it proper to comply, though immaterial as to his recovery whether he should lose blood or not. Accordingly I bound up his arm, and opened a vein. He bled about ten ounces; and, during the time the blood flowed, he repeated twice with vehemence,
mence, *Bleed me much.* The vein stopped about this time, however, I did not chuse to encourage a larger loss of blood now, to see what might be the consequence, thinking it a sufficient trial. But, after securing the orifice, I neither found the state of his pulse altered, nor the patient, as far as I could judge, any thing relieved; and seeing I could be of no farther use then, I left the room, determining to call soon after.

In the interim, the gentleman who is conjoined with me in the care of the sick, coming past accidentally, and hearing him groan, went in, when gasping for breath, he repeated to him, as he had done before to me, his request of being largely bled, who, without farther inquiry, immediately opened another vein, and took from him upwards of a pound.

During this transactio[n, I had gone to the Hospital, to prepare an anodyne for him, provided he would be alive when I came back. On my return, which was not sooner than an hour, owing to some other business which called me away, I found the fit considerably weakened, and the patient breathing something freer, though still supported in an upright position op-
posite to the door. Understanding it now to be spasmodic, I did not hesitate to administer a pretty full dose of laudanum, and left him for that evening, judging, from the quantity of his opiate, he would soon fall asleep, and in hopes, from what I saw, of his recovery.

Calling next morning, I found the fit entirely removed, and him in perfect health, only fatigued as it were from the struggles of the preceding evening.

It was now that I began to interrogate him concerning his late affection, when he gave me the following detail. He told me, this was no new complaint to him; he had suffered under it many times: That he remembers to have taken it for the first, when he was about twelve years of age; and ever since, two or more times a-year he is sure of an attack: That these were seldom of equal duration; sometimes remaining ten hours, twelve hours, and sometimes not more than six, sometimes even a much shorter time: That he feels it begin first low down in his abdomen, then rises to his stomach, afterwards gets to his left side, when he feels his heart very much pained, being, as he terms it, like the cutting of a sharp instrument. This pain
pain does not draw his body down, but obliges him to sit erect, or rather lean backwards, to take breath. As soon as it reaches the region of the heart, he says, he can no longer breathe. Along with it, he has always a violent headache: That he is scarcely ever entirely free from one, which always increases on getting cold: That, during the fit, he can swallow nothing; but on its leaving him, becomes thirsty; and sometimes this desire continues strong for a considerable time.

As the fit begins to go off, a sweat breaks out, and then he can bear to lie down.

It may not be out of place, perhaps, to take notice, that he is of a florid countenance, smooth complexion, a neck rather short than otherwise, is somewhat inclined to corpulence, and is in the 24th year of his age.

Looking on it now to have been an attack of that disease known of late by the name of angina pectoris, I inquired whether he felt any pain in his left shoulder or arm of that side; for an affection of the deltoid muscle is mentioned by several as a pretty constant attendant of this disease. But he denied ever to have felt any inconvenience or complaint there whatever.

He
He never remembers, he says, to have taken a fit at night. Its most usual time of attack is in the afternoon. He has sometimes been seized while standing.

On inquiring why he so earnestly desired to be bled, his answer was, he knew that it would cure him; for this was no new thing, it was a disease of his family; that he had a brother-in-law, an apothecary in the city of Berlin, who discovered the cure; that not only his father had been subject to it, but two of his brothers, and a sister, (this apothecary's wife), who all took it about the same age with himself, and all of whom it carried off. His eldest brother was twenty-five when it killed him; the next seventeen, and his sister eighteen, who had married the apothecary about a year and a half before her death; and this method was practiced he said on her, by which she had been often relieved; that his brother-in-law gave him the prescription, with directions, which he lost coming to England; but he remembers he was always bled first, then got a vomit, and afterwards something in a small phial; this last I judged to be an opiate. He added, that he knew
knew himself when he was bled enough, for he felt, to use his own words, as fresh at the stomach as can be.

It may appear singular to some, that it should attack persons so early as twelve years of age, relying on what Dr Heberden says, that it is mostly in an advanced period of life that it commences, viz. about fifty; yet he, at the same time, himself acknowledges that he had heard of two or three young men who had felt its severity.

All the patients which the Doctor attended died suddenly; and this was the case with the unfortunate persons mentioned above. The same author adds, that he saw one patient where the fit lasted several days, all which time he was in imminent danger. Our patient has had it for twelve hours and upwards, all which time he is likewise in the greatest distress, as well as danger. The Doctor likewise allows it to be a chronic disease, continuing for twenty years and more. In the cases pointed out here, it is evidently so. In one it continued from the twelfth to the twenty-fifth; in another, from about the same age to the seventeenth; in a third, to the eighteenth;
eighteenth; and in our patient already to his twenty-fourth.

Our patient had no pain about the middle of his left arm. Dr Heberden acknowledges that this is not a constant attendant, nay, he allows it to happen but sometimes. According to the same ingenious and accurate observer, the pain inclines most to the left side, though, in some cases, it appears situated under the sternum. In our case it was evidently in the left side, viz. in the region of the heart.

Wine and spirituous cordials have been observed to afford it relief; and the Doctor praises opiates given at night, to those troubled with night fits, as a preventative; but he denies ever to have seen any advantage follow from bleeding, vomits, or other evacuations.

The late Dr Smith of Dublin, however, who, from his extensive practice in that city, saw several cases of it, permitted Dr McBrice to publish one in the second edition of his Theory and Practice of Physic, where the evacuation made by issues greatly relieved, if not altogether cured the disease.

In some cases, perhaps, the complaint may depend on two or more causes combined, where evacuations
evacuations may not, from the nature of these combinations, always succeed. But in the case mentioned here, which would appear to be purely spasmodic, from the relief afforded by antispasmodics, evacuations made with this intention were extremely serviceable. This remark would appear to be justified from the success attending venesection, emetics, and opiates, in the relation of these other cases we have mentioned.

One thing worthy of notice in these cases is, that the disease seems to be, on some occasions, hereditary. This is a hint which no author, as far as my memory serves, ever threw out before. If, from future observations, it be found a fact, this, like other hereditary diseases, may have its feminum laid in the first formation of the stamina of the body, and hence the difficulty of making a radical cure may be as great here as it is acknowledged to be in other diseases entailed on us by our ancestors.

Whether it be allowed by the learned a hereditary complaint or not, this is surely one memorable instance of its descending from a parent to his children, and may serve at least to remind us, when we meet the disease, to make

strict
strict inquiry, as far as we are able, into those
diseases that were most general in the patient's
family.

Since this happened, the patient came to me
threatened with a second attack, when, at his
request, as a preventative, I took from him a-
bout a pound and a half of blood, and gave him
an opiate to swallow at bed-time. This might
be at the distance of two months from his for-
mer attack. I imagine this proved effectual,
for I have heard nothing of him since with re-
gard to it.
ACCOUNT OF SINGULAR CONVULSIVE FITS IN THREE CHILDREN OF ONE FAMILY. BY DR F. ARMSTRONG, PHYSICIAN AT UPPINGHAM.

The following account of three children belonging to Henry Wilmott, carpenter of Manton, in the county of Rutland, an industrious and creditable man, is so singular as to deserve some notice. The eldest daughter, Sarah, aged thirteen years, John, aged eleven years, and Susannah, aged eight years, at this time labour under a very extraordinary species of epilepsy. The boy was seized with it on the 22d of October 1780, the eldest daughter fell ill on the 12th of November, the youngest daughter was soon after removed from home, left her seeing the others in fits might be attended with ill consequences. She was accordingly removed to Hambleton, a village about two miles from Manton, where she remained for a fortnight in perfect health. On Tuesday the 28th of November,
November, she was brought home by her father, upon account of a feast that was to be held in the village of Hambleton. On Sunday the 3d of December, she was seized with most violent fits, which continued so long and strong upon her, that her parents thought she would die. Alarmed for her preservation, and for some time not knowing what to do, the father at last resolved to carry her back to Hambleton. He accordingly took her up in his arms, and carried her out of the house in strong convulsions, in which she continued all the way through that part of the town of Manton which he must go through, being about two hundred yards. As soon as he got her into the fields, the fits left her, and she was from that moment in perfect health, and run before her father all the way to Hambleton. Since this time she has had constant returns of the same fits. The children are all fine healthy looking children, and do not, from their looks, betray the least appearance of disorder.

The boy missed his fits from January the 8th, till March the 9th, and the eldest girl missed her fits for near six weeks; but what is very surprising, as soon as one falls, the others in general fall, but more especially the youngest, Susannah,
fannah, who constantly fell with the others, till within these three or four days.

They are not seized with such appearances as generally attend common convulsion or epileptic fits, no farther than from the violent and involuntary motion, the constant attendant of every species of convulsion; no cough, vomiting, or diarrhoea; no delirium or sleepiness; no blueness appears about their eyes and upper lip; no twitchings or startings, as forewarners of the approaching fit. They never fall suddenly prostrate on the ground, as is usual in the common epilepsy, neither do they complain of weariness; no pain in their heads, or interrupted sleep; no paleness of countenance, stupor or drowsiness; no unusual terror, palpitations, or disturbed respiration; no rumbling in their bowels; no discharge of foetid stools; nor have they a copious discharge of urine. Their jaws are never fixed, nor do they froth at the mouth; but, on the contrary, when seized with a fit, they spring from their chair, their arms and limbs are in constant agitation, and in irregular motions, as quick as possible, and their tongues in continual action, singing, shouting, and hallowing, with as much vehemence as if a huntsman was giving
ving the view hollow. The boy sometimes gives the most surprising springs, which could not be believed without being seen. One morning, sitting by the fire, he was suddenly seized with a fit, upon which he made a spring across the floor, and jumped upon a large table, upwards of three feet high, the distance being no less than three yards. Upon this he danced for some time, making the most ghastly faces that were ever beheld, his nose being quite drawn into his face, and seemed as if mocking every person round him. So altered, at times, are their countenances, that their parents are not able to know their children. The fits, after they leave them, affect their limbs and speech in a most extraordinary manner. They lose the use of their speech and limbs sometimes for five days, though perfectly sensible during the whole time; but have perfect use of their hands and arms.

They have been sent from home for a fortnight together, and have not had the appearance of a fit. No sooner do they enter their father's habitation, than they are thrown into the most distressful situation human nature can conceive.

They
They at times, during the fits, will twist their legs round the chairs, so as to make it hardly possible to unloose them. Their parents can assign no cause for these fits, nor can I trace any taint of such a nature, either in Wilmott’s or his wife’s family.

The whole family was afflicted with the scarlatina anginoso in autumn last; and immediately before the children had these fits, they had the hooping cough, but in a very favourable manner.

This is the account I received from the parents and others who had seen them in the fits. They have been for some time under the care of a judicious apothecary, Mr John Smith of Uppingham, at the particular request of Thomas Barker, Esq; of Lindou, a man no less distinguished for his piety, than he is for a most charitable and benevolent disposition. Mr Smith has used every judicious means to relieve these children, but as yet nothing has proved effectual; nor have the parents been satisfied with this, but they have consulted the famous Mr Stanger, who has made no scruple to pronounce it witchcraft.
About ten days ago, I heard from some of my friends the melancholy situation this family was in, and at their request I visited them. What I wished most for, was to see one or more of the children in a fit, by which I might be convinced that I was not imposed upon in the accounts I had received, which in this paper I have most faithfully related; and I must confess, I was stimulated not less from curiosity, thinking at the same time that I might, in future, by some means, relieve this distressed family, by a well timed and proper application of medicine. I accordingly called on the 6th of March 1781, but was for that time disappointed, the eldest girl being from home. The mother told me then, that she was almost certain to have a fit, should she be brought into the house. I therefore told her, I should certainly call in three or four days. I accordingly called on Saturday the 10th. She informed me her daughter was not at home, but in a house in the town where they had sent her, as they thought this would be the means of preventing her fits. She had been there for eight days, during which time she had been in perfect health.
I therefore begged the mother to send for her home, which was accordingly complied with. Being seated in a chair, I perceived an elderly woman coming in at the door, and close after her came the girl. As I had never seen her before, I did not know whether this was the person I wished to see. However, she did not keep me long in suspense. No sooner had she crossed the threshold of the door, than she set up the most hideous cry I ever heard. Her arms, legs, head and body were all at once distorted and agitated in a most surprising manner. She kept continually jumping, dancing, hollowing and singing, struggling very little, her eyes were wide open, her mouth open, and her tongue moving as quick as thought. During the whole fit, I kept myself as collected as possible, though I was a good deal alarmed, as well at the sudden, as the surprising noise she made, and the figure she displayed. I took out my watch, found her pulse very little altered from the standard of health, beating about eighty in a minute, her temporal artery throbbed very much, and her countenance became florid.

I tried many things, to see whether she could possibly feign the fits, but nothing had any effect.
fect. Wishing she might be relieved from the most miserable situation I ever saw any person in, I begged the mother to inform me what they did on such occasions. She informed me, removing her into the air would very likely give her relief, which was immediately complied with. I followed her attentively all the way, looking on her, and now and then on my watch. As soon as she came into the air, I perceived a serenity of countenance I before had not seen; in less than two minutes the fit subsided; and in less than two more, the girl walked off in perfect health, the fit leaving no drowsiness nor stupidity; nor had she the least complaint remaining, excepting a slight pain in her head, which was but momentary.

By what I can learn, these children fall commonly about the full, change, or quarterings of the moon. The boy fell into these fits a day after the last quartering of the moon in October. The eldest daughter fell on the 12th of November, being the day on which the moon was at the full. The youngest daughter was seized with fits on the 3d of December, being the day on which the moon first quartered. The son missed his fits from January the 8th, till
till March 9th, and the moon was at the full on the 10th, at seven in the morning; and I happened to see the eldest daughter in a fit on the day the moon full’d, the 10th of March, and she had had no fits for ten days before that. I called upon the family on Sunday last, and inquired after the health of the children. This was upon the 8th of April. The mother informed me, they had no fits from the time I saw them, which was on the 10th of March, till Friday the 6th of April, on which day they had been all taken very ill, and continued so ever since, having seven or eight fits in a day. They were seized with these fits a day before the moon last full’d, _viz._ on the 6th of April, and the moon full’d at twelve o’clock at night on the 7th.

From these circumstances, I think there is not the least doubt of their being truly epileptic, though they put on a different aspect as to appearances.

Query. Might not these fits be brought on by the hooping cough disappearing so very suddenly.
XXI.

A Case of a Flap Operation united by the first Intention. By Mr Thomas Jones, Surgeon at Bingley, near Bradford, Yorkshire, late Surgeon to the Leeds Infirmary.

Joseph Jagger, aged seventeen, was admitted into the Infirmary at Leeds, April 6. 1782, for a scrophulous ankle, and caries through the whole of the metatarsal bones. On a consultation with my colleagues Mr Hey and Mr Lucas, amputation was judged expedient. Intending to make a flap, as Mr Bromfield recommends, and resolving to replace it immediately, and heal it by the first intention, April 11. I with a yard-band divided into inches, first took the circumference of the leg where I meant to introduce the catlin, and marked it with ink; it was nine inches: from this I measured three inches downward, and marked it; at which place I proposed bringing the catlin out. The
The tourniquet being tightened, and integuments drawn up by an assistant, I thrust the cat-lin through at the upper mark on the back side of the fibula, between the gastroenemii and soleus muscles, carrying it down, and rather obliquely out at the lowest mark, which formed the flap. After, by a semicircular incision with the amputating knife (the integuments being again drawn up), I used the double incision, and finished the operation in the usual manner. There was a small portion of the tendo Achillis on the extremity of the flap, which I cut off.

I should mention, that, after such an operation, the flap will appear somewhat longer than is necessary to reach and cover the superior edge of the stump; but it will retract; and, if properly supported, the proportion of one to three will be found generally to answer exactly.

Three arteries were taken up by the tenaculum with ligatures; after which, the integuments (a good deal being faved) were brought down by one of the gentlemen, whilst I passed a swan-skin flannel roller, beginning on the thigh, and carrying it downwards; the flap being now applied, was retained by the interrupted future on each side of the stump, and the upper part supported
supported by long slips of cloth spread with cerat. alb. Then the roller was continued lower down near to the end of the stump, and back again over the linen plasters, to keep them firm. The dressing consisted of a compress of dry tow and a flannel cap.—The boy took only one opiate after the operation, and no other medicine, except a little opening solutioon ordered occasionally; neither had he any pain or symptomatic fever worth mentioning.

As the discharge was small, and the stump not in the least offensive, I did not open it till the 16th, when I found the lower part of the flap and sides adhered. There being no inflammation where the Futures were passed, I let them remain; it was rolled afresh, and dressed as at first; two of the ligatures came away.

18th, I dressed it again; the remaining ligature came away; the futures were suffered to remain; but, to keep the flap firm, I made use of a long slip of adhesive plaster spread on leather, carried it from below upwards, another across, and on the middle of the stump; on each side pledgets of lint were applied, spread with cerate.
19th, I cut out the futures; the flap was firmly united, and the discharge very inconsiderable; pledgets of lint spread thin with cerate were put on every day, and the plasters continued till the 25th, at which time the flump was perfectly healed, and the cicatrix not broader than a quarter of an inch.

I flatter myself, the above recited fact will serve the purpose of confirming in some degree so excellent a practice.

Every one will readily acknowledge his obligation to the ingenious Mr Allanson of Liverpool, for his late publication on amputation. He seems to be the first that has discarded the application of dressings to the surface of the flump, and recommended healing by the first intention. This hint will certainly prove of great advantage in a variety of other operations.

Extract of a Letter from Mr Jones to Dr Duncan.

Three months after I transmitted to you the case of flap operation healed by the first intention, a second case occurred, in which I operated in the same manner, and with equal success. There
There were three vessels taken up, and a sitch
made use of to support the flap, as before. No
opiate was required after the operation; the
stump was not opened till the eighth day, when
one ligature came away, and the sitch was cut
out. In two days, it was dressed again, and the
remaining ligatures came away. From the day
of this operation till his discharge from the In-
firmary, was exactly a fortnight. The flap was
so firm, and made so good a cushion, as to bear
any pressure upon it.

XXII.

History of a Case of Imperforated Hymen cured by
Incision. Communicated to Dr Duncan by Mr
David Niven Surgeon.

M——C——, aged twenty, of a slender
make, and yellowish complexion, very
much pitted with the small-pox, was affected
with a firm circumscribed tumour, distinguish-
able upon pressure, which occupied a part of
the umbilical, and almost the whole of the right hypogastric region.

About the middle of the left hypogastric region, or nearer the ileum of that side, was felt a tumour harder than the former, and about the bulk and figure of a goose egg.

The external parts of generation were natural, both in size and situation; but where the vagina ought to have been, there was a small fossa, about half an inch deep, and wide enough to admit the tip of the little finger. The under brim of it was surrounded by a semilunar membranous fold, evidently the hymen. At the upper side of the fossa, and near to its bottom, the urethra had its usual termination. The bottom was firm and tense to the touch; and no foramen could be discovered, either by inspection, or searching with a small probe.

She complained of lasitude and debility, a sense of weight and bearing down at the bottom of the belly; pains of the back, haunches, and thighs; squeamishness, and loss of appetite; her pulse was quick; respiration hurried, upon any quick or laborious motion of the body; and her belly commonly costive. She had never menstruated; had a frequent desire to make urine, but
but voided it with pain, drop by drop, and in small quantity, while she pressed upon the perinæum. Upon attempting to introduce a probe, an insuperable resistance was felt about an inch beyond the orifice of the urethra.

These symptoms now returned with violence every third or fourth day; and although, upon the intermediate days, she was not entirely free from them, they suffered a considerable remission, so that she was able to walk about. While the symptoms continued severe, the tumours increased in size; and when these abated, they sensibly subsided.

The patient first discovered these tumours about eighteen months before; since which, they had gradually increased, and the other symptoms had kept pace with, and always been in proportion to their augmentation. Previous to the commencement of this affection, she enjoyed a state of perfect health. About three or four months ago, she made application to a practitioner in medicine for relief, who judging all her complaints to proceed from the emansio, and being ignorant of the cause of that, gave her emmenagogues in vain; till at last, from its obduracy, he began to suspect that the retention might
might be owing to a malconformation of the genitals; and, upon examination, was confirmed in his conjecture.

There being here little doubt that the tumour inclining to the right side was the uterus distended with menstrual blood, while that on the left side seemed likely to be the ovarium preternaturally enlarged, it was agreed that an operation should be performed, as affording the only probable chance of relief. Accordingly, a lancet was entered at the bottom of the fossa, and pushed forwards more than a couple of inches, in the course of the vagina as near as could be guessed. It was then drawn out, on purpose to introduce a scalpel, with which it was intended to dilate, and continue the incision farther if necessary. But the instant it was withdrawn, blood rushed out, of a reddish brown colour, about the consistence of molasses, and free from any smell. As it continued to flow pretty freely, the dilatation of the incision was agreed to be referred till next day, presuming the parts would not reunite before that time; and, in the interim, with a view to encourage the discharge, she was directed to take moderate exercise, sit for some time over the steams of warm water, and
and to have the parts fomented with it frequently. About ten o'clock that night the discharge stopped. After between three and four pounds of this inspissated blood had been evacuated, the tumours of the abdomen, especially that on the right side, were now considerably fallen, but not altogether. Next day a probe was tried to be passed up the opening made the preceding day; but, about half its depth, a resistance was felt, which by moderate force could not be overcome. A directory was then slipped up, and a bistort run along its groove, by which the opening was dilated so as to admit the finger. This was introduced, and afterwards a probe, to search for the aperture which communicated with the cavity whence the blood was discharged. But this could not be discovered. The operator and physician present did not, however, it seems, think it advisable to cut any deeper at that time. The patient, whose complaints had been greatly alleviated by the evacuation, began the second day after the operation to complain of pains of the back, loins, and abdomen, which last began to swell. Three days thereafter, febrile symptoms supervened, for which a vomit of ipecacuanha was given. The night
night after its operation, a matter resembling the former in colour, but of a thinner consistence, and having an intolerably fœtid smell, was poured forth from the mouth of the artificial vagina in great quantity. It ran through the bed-clothes, and upon the floor, so that the exact quantity could not be ascertained. In a few hours, this discharge diminished, but continued to drill in small quantity, at irregular intervals, for some days. During that time she was seized with a general forensis and distension over the whole abdomen, which, by gentle laxatives and cooling diet, went gradually off; and, in the space of eighteen days after the operation, she was in tolerable health, though neither of the tumours were entirely subsided.

I afterwards learned, that sufficient care not being taken to preserve the opening from closing, the parts again united, and two or three menstrual periods elapsing when in this state, she was again seized with symptoms of retention to a violent degree. The surgeon was sent for, and the operation again repeated with success. Proper care being afterwards taken to preserve the opening, she continued to menstruate at the ordinary periods, and enjoyed tolerable
rable health, last time I heard of her, which was eight months after the last operation.

XXIII.

A Case of encysted Sarcocèle. By William Gourlay, M. D. Physician in the Island of Madeira, and Member of the Medical Society of Edinburgh.

P—— C—— J—— de A—— aged fifty years, desired my assistance on the 20th April 1784, for a large swelling he had in the scrotum.

I found the whole left side of it, and part of the right, as large as a new born child's head, of a somewhat oblong spheroidal shape, red dusky colour, with distended veins, accompanied with considerable inflammation and violent twitching pains. Its feel was somewhat elastic, and retained for some time the impression of the fingers. I could discern an evident collection of matter on its most depending part, which seemed
COMMENTARIES

ed to be in the cellular substance of the scrotum. And, upon pressing the rest of its surface with freedom, a fluid was distinctly felt, deeper seated, which I conjectured to be an hydrocele of the tunica vaginalis. I could feel very distinctly the whole spermatic cord; but, upon the most accurate examination, could not trace the smallest vestige of the testicle. Upon inquiry concerning the origin of this complaint, I was informed, that, fourteen years ago, he felt a slight hardness at the bottom of the left testicle, which had increased in a gradual manner, without any pain, till within this twelvemonth, when, in consequence of some external application, it began to make very rapid progress, attended frequently with most severe lancinating pains, resembling the pricking of needles, which he principally felt about the epididymis; and, eight days before I was consulted, having received some injury, a violent inflammation succeeded, attended with symptomatic fever, frequent startings, and shivering fits, with pains in the belly, nausea and vomiting.

Two years previous to its first appearance, he was infected with a gonorrhoea, of which he had never got cured. He had been also fre-
quently subject to a variety of venereal complaints.

I put him on the antiphlogistic regimen, and applied a large emollient poultice over the swelling, and gave him an opiate at night, from which he soon obtained considerable relief.

Two days after, Messrs Oliphant, Forbes, Mair, and Bowman, surgeons, being here for a few days on their way to Jamaica, we, upon considering his case, were clearly of opinion that an operation was necessary; and, from the circumstances of it, we judged it very complicated, and suspected the testicle to be the primary seat of the disease.

Upon delivering our opinion to the patient, I warned him, that in case we should find the testicle much diseased, it would be necessary to extirpate it, in order to make a complete cure. He consented to every thing that should be deemed necessary. I accordingly, next day, performed the operation. It was first proposed that the external abscess should be laid open: A puncture being made, there was discharged a considerable quantity of laudable pus; and, upon accurately examining with the probe and fore-finger, I could find no communication
nication between this and the disorder in the tunica vaginalis. It was therefore proposed to perform the radical cure of hydrocele; which I accordingly did, by making an incision the whole length of the tumour, beginning from the most superior to its most inferior and anterior part. After laying the vaginal coat bare, I made a puncture at the upper part, and, with the curved probe-pointed biftouri, the fore-finger of my left hand being the conductor, I dilated the vaginal coat the whole length of the first incision, and gave discharge to a considerable quantity of water and black fetid matter, resembling the grounds of chocolate. In some parts the water and matter were intermixed; at other places, they came out in separate jerks, with considerable force; and there immediately protruded a large bag of cysts, from which the greatest part of the matter and water immediately sprang. This was the size of a large sheep's bladder distended, the cysts about a dozen in all, and some of them as large as a hen's egg, and of various colours and consistence; some were almost black, some more or less vivid, and others of a pellucid appearance; several of them contained nothing but water; others black fetid.
tid matter, and a number of them matter of a
tough viscid consistence, resembling putrid
floughs. I took out a large handful of this sub-
stance from the bottom of the sac, intermixed
with a considerable quantity of matter and wa-
ter, suppos'd to have proceeded either from a
rupture or dissolution of the cysts. They all
had a very delicate and tender structure, for as
soon as the sac was opened, most of them broke
spontaneously. After having removed all the
cysts, we next examined for the situation and
flage of the testicle, but, after the most scrupu-
lous search, could not find the smallest vestige
of it remaining. Its whole texture was entirely
obliterated; and, instead of it, I found the
tunica vaginalis very much diseased. It was
considerably indurated, and thickened to two
inches, with several spots of evident erosion, and
ulcerations on its surface, some of them as
broad as a shilling, which had penetrated en-
tirely through the substance of the coat. We
were therefore of opinion that these hydatides
must have been originally formed in the sub-
stance of the testicle, and, from the long con-
tinuance of the disorder, had destroyed its tex-
ture
ture in such a manner as to occasion the appearances I have described.

Such being the situation of the parts, it was thought advisable to perform the operation of farcocele. I fortunately found the whole spermatic cord entirely free from disease, and in a perfectly natural state. I passed a ligature round the cord, and, after cutting it, found considerable difficulty in detaching the vaginal coat from the surrounding cellular substance, the adhesions were so great all round it. The whole being removed, I found the greatest part of the serotum almost in a mortified state. It was quite destitute of feeling, remarkably cold, black and livid, and of a spongy doughy feel. The patient's extremities became extremely cold, his countenance pale, and his pulse hardly perceptible. I dressed the wound, put him to bed, and ordered an anodyne draught, with forty drops of the thebaic tincture, to be repeated occasionally. It soon procured him a sound sleep. Next day, I applied a large emollient poultice over all, and the day following dressed him, when a plentiful suppuration of laudable pus appeared. The serotum had greatly recovered its tone. The symptomatic fever never ran high;
and I immediately put him on a liberal course of wine and bark, joined with an invigorating diet; and in the course of six weeks the cure was completed.

From considering the rise, progress and state of the parts, during the course of this very singular disorder, I think I cannot affix a more proper name to it than encysted sarcocele.

From the history of the case, at its incipient state, it put on the appearance, and had most of the characteristic symptoms of schirrous testicle; it increased in a very gradual manner, without any pain or discoloration, till a very advanced period of the disease. The feel of it corresponded with schirrus, and it arose from a venereal taint, the patient being for a long time previous to its commencement, subject to a gonorrhœa, and to a variety of other modifications of syphilis. From his own account, it began in the under part of the testicle; but when the disease increased rapidly, he felt the twitching and lancinating pains first in the epididymis; and what confirmed more the idea that it was first a schirrus, the vaginal coat was evidently in a diseased state; it was very much indurated, thickened and ulcerated, and all the surrounding
ing parts put on a morbid appearance. It is more than probable, that in its progress it was of a real cancerous nature, and that from the debility of the parts, occasioned by the long continuance of the disease, it gave rise to the formation of these cysts. It is likewise known, that a diseased testicle, from a venereal cause, gives rise to schirrus of the very worst kind; and it is highly probable, that the water and matter found extravasated within the vaginal coat, had been occasioned by a rupture of these cysts; for we have frequent instances of similar effusions happening in the progress of farcocele.

There is likewise reason for supposing, from the pathology of diseases, that cysts may form in any part of the animal body, but more especially in the glandular. We read of instances of their formation in the kidneys, the female ovaria and mammae. And although physiologists are yet divided in opinion concerning the theory of hydatides; yet, when we consider the structure of the testicle, are there not plausible grounds for adopting the hypothesis, that they may be formed from ruptured lymphatic vessels?
XXIV.

Account of an uncommon Discharge, from an opening made into a large Tumour in the under-part of the Belly and Back. By Mr Thomas Collingwood, Surgeon at Alnwick.

I was called in July 1777, to visit a son of P. B. nine years of age. He had complained for two years, taken many medicines, and different advices, without being bettered thereby. His complaints were dyspnoea, cough and gross expectoration, pulse quick, appetite bad, belly regular, and body much emaciated. Add to these, he had formerly been rickety, his spine was distorted, the lower end of the sternum much elevated, the distortion was in the uppermost lumbar vertebrae, which bulged outward and toward the left side, the left ilium fank inward to the os sacrum, and the right stood out in proportion. I ordered a large bandage to be kept over the protuberance, gave pectoral
pectoral medicines, and put him on a milk and vegetable diet.

In August and September he appeared much better, his appetite returned, his hectic abated, and he was able to run about among his playfellows.

In the middle of October an inflammation appeared on the right side, a little higher than the region of the kidney. I applied antiphlogistics, about two weeks; but finding it daily increase, a resolution was deemed impracticable. I next attempted suppuration, although I suspected the event might be dangerous.

I shall not say whether the poultices that were applied till November were of service, or hurtful. They were, however, continued. I proposed making an incision into it in the month of March; but my doubt of the result, deterred his friends from allowing me. The boy continued weaker every day till the 30th of May, when, in consultation with another surgeon, I was desired to open it at all events. It was then as large as a hat-crown, and much inflamed, stretching from the lumbar vertebrae to the m. pyramidalis abdominis, down over the os ilium. An incision was made three inches long, through
through the integuments and abdominal muscles, toward the most depending part. In about half an hour it discharged seven pounds of matter, of the colour and consistence of new cream, without any bad smell or taste. I dressed it with lint and basilicon ointment. I dressed it every morning for the first week; but from the warmness of the weather, and constant discharge, I afterwards caused it to be dressed twice a day. The first fortnight the boy seemed to recover fast; but on the fifteenth, the hectic fever returned, accompanied with diarrhoea, his faeces yellowish and foetid. I ordered a few doses of rhubarb, and a glass of port-wine thrice a day. He continued in a debilitated state for twenty days, although the diarrhoea was carried off. I then gave him the Peruvian bark, with bitters. In a few days his febrile symptoms abated, his appetite returned, and he began to walk on crutches. From the time that the operation was performed, he had an insatiable desire for acids. I did not restrict him from them. The discharge increased in proportion to his appetite. Having from time to time examined the matter discharged at the orifice, I could not account for its appearance. It had no bad taste,
was rather sweetish, had a four or acid smell. I often kept it three or four weeks in a close corked phial, without suffering any alteration in its consistence, smell or taste; but if I left it with the cork out twenty-four hours, it smelt very four; and in a few hours more, highly putrid. I suggested to the surgeon already mentioned, that we had made an incision into the receptaculum chyli, which, (according to the learned and candid Professor, the late Dr Monro), in its natural state, "is a small pyriform bag, two-thirds of an inch long, one-third of an inch over, in its largest part, situated on the first vertebra lumbarum," which corresponds exactly with the situation of the cyst above mentioned. What reason can we assign for this phenomenon, but that the transverse process of the last intercostal vertebrae, pressed upon the thoracic duct, obstructing that tube; and that instead of the chyle being conveyed into the blood, it was discharged by the orifice.

What confirms me in this opinion is, that the boy's appetite continued good, while his strength gradually declined. The quantity discharged, at an average, was two ounces in a day. It was greater in the morning than in the evening. I often
often caused the boy to make a pressure, by exerting the diaphragm and abdominal muscles, four hours after a hearty meal, which always produced a greater quantity. I prevented it from flowing spontaneously by a tent, with a design to determine how long it took from the food being taken into the stomach, before it was converted into chyle. I often caused the cyst to be emptied before a full meal, four hours after it contained a very small quantity; but in six hours it discharged almost an ounce. I proposed making an incision to the vertebrae, and cutting off the transverse processes. This, however, his friends would not allow.

Having tried the matter discharged by evaporation, three-fourths of it went off a simple watery fluid; there remained in the bottom of the crucible a straw-coloured earthy substance, which had neither smell nor taste, nor could it be acted upon by acids or alkalies. I tried it with acids and alkalies, without the action of fire, but no effervescence took place. This exactly agreed with what the celebrated Boerhaave and Haller said of the chyle, when mixed with the other juices in the intestinal canal and mesenteric glands, before it enters the ductus thoracicus.
thoracicus. The boy continued gradually wasting, dropical swellings appearing over several parts of the abdomen, proceeding, no doubt, from a want of nourishment in the vascular and nervous system, and he died on the 20th of November, a mere skeleton.

XXV.

History of a Diabetes successfully treated by the Use of Dover’s Powder. By Dr Samuel M’Cormick, Physician at Antrim.

Mr W—— M——, of a florid complexion, and a gross corpulent habit of body, very subject to frequent and violent fits of the gout, but in other respects an healthy man till about the age of seventy years, was seized with an unusual thirst, which however was not for some weeks much noticed by him, or apprehended as the forerunner of any disorder. He was sometimes much surprised at his being obliged to steal out of company, and privately swallow a pint
pint of porter; a thing very unusual with him, as he was in general a temperate man. The next thing he took notice of, was the large quantity of urine he made, especially in the night, which raised him out of his sleep every hour or two; but neither did this greatly alarm him, as he imputed it to the large quantity he drank through the day; for as yet he had no bodily complaint, the thirst only excepted. But at length he began to perceive his bulk to decline fast, especially his legs and belly, so that it was taken notice of by his neighbours. Now, finding both his appetite and strength beginning to decline, he applied to me for advice. I found his urine large in quantity, even in proportion to his drink, and almost as limpid as common water, sweetish to the taste, or rather somewhat of the flavour of the last liquid he had taken. His florid complexion turned to a strange fallow hue; the muscles of the face relaxed and sunk; his skin dry as a piece of parchment, and withered; the fauces, tongue, and lips dry beyond conception. Add to this, that he had not the command of the organs of speech so properly as formerly. But no description can delineate, nor is it in the power of language to convey an idea of what
he suffered by thirst. He was quite unhappy, but just the instant that the liquid was passing down his throat; and next minute after swallowing it, his thirst was as violent as before. At the same time, his tongue was not foul, nor furred; neither was his pulse much changed from its natural state, only somewhat lower. His strength greatly declined; so that it was, with some difficulty he could walk a few steps unsupported, and all this happened in a few weeks. In short, his case seemed to be desperate. Besides his unconquerable thirst, he was tormented with a tough phlegm in his mouth and throat, that could only be got off by retching and puking; for which a puke was sometimes taken with some little advantage for a short time.

From all his symptoms it was incontestably evident, that his disorder was a real diabetes; and as he had a livid brassy colour in his face, somewhat resembling jaundice, it was proper to inquire minutely, whether Dr Mead's opinion, that in that ailment the liver is always faulty, would hold true in this case. But on the strictest scrutiny that could be made on a living subject, there appeared no foundation for such
an opinion, which the subsequent part of this history will confirm.

The first injunction was for the patient to drink as little as possible. This, to him, was a most severe, almost an inhuman prohibition; but with this he complied for some time. What he did drink was a compound lime-water, or sometimes simple lime-water; and, to allay his thirst, some drops of the following: Rx. Elixir. vitriol. acid. drachmas duas, Tinct. cort. Peruv. unciam unam. M. These drops were taken in a small glass of water, three or four times a-day. The following electuary was prescribed, and continued for some time: Rx. Pulv. cort. Peruv. unciam unam; Alum. Rup. drachmam unam; Limmat. mart. Pulv. Gum. tragacanth. utriusque drachmas duas; Syr. e cort. aurantior. q. f. m. f. elect. Cap. molem nuc. mosch. ter die. Superbib. unicias sex feri aluminos. After taking these medicines for about a fortnight, the following was taken every night, in place of the last dose of the electuary, viz. Rx. Sang. dracon. G. mastic. Alum. Rup. singulorum scrupulum unum. In chart. ii. divid. As he was subject to coltiveness, a dose of rhubarb was now and then given in the pulp of tamarinds, and sometimes
times a puke of tartar emetic, dry friction in
the mornings, and cold spring-water poured on
the small of the back, were often repeated. In
short, this course strictly pursued from March 10
to April 13. was of no avail; he was now redu-
ced to a skeleton, and all hopes of recovery
over. He was then indulged to lay aside the
use of the medicines, as they had proved quite
ineffectual, and to drink more freely than what
he had been formerly allowed. The drink he
took, however, for the most part, was lime-
water, alum-whey, or water that a hot iron had
been quenched in. Bristol water could not be
had.

As there was such a total stoppage of perspi-
ration, that it much resembled a skin taken off
and dried for some time, it was probable, if this
evacuation could be by any safe means promoted,
it might lessen the discharge by urine. For this
purpose, he was put under a course of the pulv.
Doveri. The dose at first directed was twenty
grains every night, which was gradually aug-
mented, till in the course of three weeks he
took seventy grains at night. At that period, he
fell into a most profuse sweat, which continued
without intermission for thirty-six hours. Du-
Vol. IX. Z ring
ring that time, he thought himself in a comfortable state, and had less frequent calls to make urine; and, notwithstanding the great discharge by sweat, his thirst abated, his skin came to a natural feel. In short, every symptom from that time wore a more favourable aspect. In a few weeks, he was so far recovered, that he had in some measure regained his flesh, and his former florid complexion.

I have had another in the same disorder since the above, and treated him much in the like manner, with Dover’s powder, with the same good success.

XXVI.

Account of the good Effects of Peruvian Bark and Madeira Wine, in an obstinate Ulcer of the Leg.
By Mr William Rait, Surgeon.

B—— F——, a private soldier in Lord Charles Montague’s regiment, aged about twenty-seven, of a thin adult temperament, and scorbutic
florbutic habit of body, had (by his own account) his leg run over by a heavy-laden wagon wheel, when on a march in North America, which was cured, but upon any fatigue or irritation, always broke out in ulcers.

He embarked on board his Majesty's ship Nestor, to act as a marine, on the 16th August 1782, but was soon rendered incapable of duty by his old sore.

I tried almost every method licensed by modern practice, as well with regard to external dressings, as with a view to meliorate his general habit; but in vain; for, notwithstanding all my care and attention, it spread so much, and the loss of substance became so great in the course of a fortnight, as to lay bare the tendons on the exterior and back part of the leg, as also the tendo Achillis, with an evident enlargement of bone, which I had from the beginning suspected.

The discharge at last became so great, and the ulcer put on so fordid an appearance, that I entertained but a very faint hope of saving my poor patient's life. However, I continued to ply him with bark and cordials occasionally, till the 19th September; when, that no effort or assistance
fistance might be wanting which I could procure, the captain, at my request, sent on board his Majesty's sloop Fury (our comfort) for the surgeon and mate, who consulted, and concurred with me in opinion, that my patient was at that moment in too low a state to suffer amputation, which we then thought the only means of giving him any chance of recovery. Even something of a gangrenous glairy appearance, with les matter than usual, had then taken place on the surface and edges of the fore. I was resolved, however, not to give him up, while the least glimpse of hope remained.

We had some excellent old Madeira on board; and I mixed in a bottle of it a large proportion of powdered bark, of which I gave him as his stomach would bear, without any regard to time or quantity.

This I began to do in the morning; and before night his pulse was somewhat better, and his languid eyes began to have a little meaning. At bed-time I gave him a grain of opium.

21st, He rested much better than he had done for many nights before; and this morning I was agreeably surprised to find him much better, and somewhat talkative. He intreated me to
to amputate; and I encouraged him, by telling him, I would, so soon as he gained a little strength; and continued the cortex and Madeira, with opiates occasionally, till the 23d, when he was really surprisingly better; the discharge mended, and some appearance of separation took place at the edges. His sore was however so great a nuisance, that he continued very solicitous about amputation, and told me he could muster up strength to bear it very well. Although I had my doubts about this, yet I considered it to be too favourable an opportunity to let slip. The generous use of the cortex and wine evidently brought about this remarkable change; and I am well convinced, that nothing else could have lengthened out his existence. The loss of substance was so great, that I believed it irreparable, even allowing his constitution to admit of a total change for the better; I therefore (although I have no great faith in amputations in such cases and habits, in warm climates particularly) thought proper to risk an amputation. For that purpose, I communicated my sentiments by letter to the surgeon of his Majesty’s flagg Fury. But her signal being made to chace soon after, I was obliged to dispense with his assistance.
fistula. On the 24th, I amputated below the knee; but although he lost very little blood by the operation, he was so weak, with no pulse at the wrists, and a degree of coldness, that I could not venture to move him from the cockpit till the evening. He had several cordials occasionally; and about ten at night I gave him twenty-five drops Thebaic tincture in a glass of Madeira.

He continued rather in a doubtful state till the 27th, when I dressed the stump for the first time; little or no suppuration had at that time taken place. At four afternoon, he had a very copious natural stool of black very fetid hardened faeces. 28th, The ship rolled deep, which disturbed his stump a good deal. I gave a few drops Thebaic tincture, which procured a gentle dozing, and relieved him. 29th, He continued weak, but began to have a good appetite and spirits. At two afternoon, he had a natural black hardened stool. 30th, Dressed the stump. An excellent discharge of very laudable pus had taken place, attended with large maggots, which occasioned a slight but rather troublesome degree of irritation. Pulse, spirits, and appetite good. 2d October, The discharge
discharge copious, but very laudable; replete with maggots, which generated very quick. He had a natural stool yesterday, and another in the night. 4th, Had a natural stool. 5th, Had a natural stool. His appetite is very keen, and he has a little indulgence from the captain's table and officers meals. He has had an allowance of wine all along in lieu of rum. 6th, The stump continued to suppurate and incarn well and fast. 7th, The end of the bones was completely covered with granulations of new flesh. From that to the 13th, dressed the stump regularly every day, when I dismissed him, in good health, to his regiment, at Kingston, Jamaica. I never had an opportunity of seeing him afterwards.

I cannot help mentioning, as a proof of his vigour, that, a few days before he quitted the ship, to the astonishment of every body, he hopped from his cradle in the main hatch-way, to the top of the cockpit ladder, to wrangle with the purser's steward about his allowance.
XXVII.

History of a singular Case of Purulent Ascites, cured by Tapping. Communicated to Dr Duncan, in a Letter from Glasgow. By Dr Alexander M'Latchlan.

M——K——, aged twenty-six, a few days after delivery, when under the discharge of the lochia, in the month of February 1779, was accidentally exposed to cold, in consequence of which they stopped. She was then seized with an acute pain in the hypochondriac region of the right side, preceded by coldness and shivering, together with debility and other marks of a febrile paroxysm, denominated a weed by the vulgar. To this, which lasted twenty-four hours, succeeded thirst and scantiness of urine, with a perceptible swelling in the under-part of the abdomen; and though its progress was somewhat impeded by medicines administered to her at that time, and the thirst with paucity of urine removed, yet it continued to
to increase gradually, till towards the end of summer 1783, but without any inconvenience to her, saving that every spring, (the last excepted), a similar pain seized her, which had its seat lower in the abdomen, immediately above the haunch of the same side, continuing a fortnight each time, and going off without the help of medicines, as she never called in assistance, though it confined her to her bed for that space of time. Her menses during the whole time were regular as to period, but small in quantity, continuing only a single day, and the fluid evacuated scarcely tinged linen. In July 1783, she was exposed to cold, and got wet while washing, when she suffered a return of the feverish paroxysm, with the symptoms above enumerated, and a considerable enlargement of the abdomen already very much distended. Her thirst was now considerable, urine diminished in quantity, and her legs, which she had never before observed, swelled towards evening, if not kept the most of the day in a horizontal posture. She at this time applied for assistance, and upon examination, the above appearances were observed, with an evident fluctuation when the abdomen was struck.

After
After making trial of the different diuretics and purgatives to no purpose, she was tapped on the 19th August, by Mr Charles Wilson, surgeon in this place, and twenty-eight English pints drawn off, of a fluid, serous to appearance, and which coagulated by spirit of wine and the application of heat. She found herself after this considerably relieved, so much so, that she went to the country for a little time, but soon came back, being threatened with a return of the ascites, and having been seized with a pain in the right side, so acute as to impede respiration. For this she was blooded to the quantity of eight ounces, which was fizy; and she had a blister applied to her side, to which the pain yielded. She was then put upon a course of calomel and squills, with purgatives intermixed; but this failing, the abdomen having again become considerably swelled, she was tapped a second time on the 24th of September, and thirty-two pints of fluid drawn off; the first half of which was real pus, sank to the bottom of the vessel, and had whitish membranous films mixed with it, resembling the pellicle which is found on the surface of boiled milk, frequently causing such a stoppage of the canula, as to require the introduction
introduction of a probe, tinging it of a dark purple colour, and emitting an intolerable fæctor. Her urine was now secreted in greater quantity, and the third day after the operation, she discharged half a pint, which though limpid when made, grew gradually turbid, and deposited a copious white sediment, appearing, upon examination, to be similar to the purulent matter drawn off in the operation. This sediment appeared in her urine in considerable quantity, six different times in the course of eight days; and upon its discontinuing, there appeared over all her body a scabby eruption, beginning with an inflammatory spot, suppuring and discharging a considerable quantity of matter, which it continued to do till the abdomen began to swell a third time, when it dried up.

The enlargement of the abdomen becoming considerable, the operation was repeated a third time, on the 28th of November, when twenty pints of purulent matter came away, without any mixture of serum, but with the same membranous films as before. This did not appear so acrid as the last, as it neither tinged the canula, nor had any perceptible fæctor. Her urine was now again voided in proper quantity, and
and her thirst considerably abated. She experienced a return of the eruption, similar to the former; but the pustules were of a smaller size, somewhat resembling the pustules in the distinct small-pox, from which a considerable quantity of matter ouzed. This, like the former, has dried up; but there is no appearance of a return of the ascites. Her appetite is keen, pulse and belly natural, thirst not unusual, and urine equal to, if not in greater quantity than her drink. She takes a good deal of exercise, is upon a course of bark and limatur. mart. præp. and, to use her own expression, is swamper than the day she was pierced, though her menves have not appeared since she was first tapped, which is now three months ago.
Extract of a Letter from Mr William Grieve, Surgeon in Grenada, to Mr Kellie, Surgeon in Leith, on the Use of the Bark of the Angeline Tree, as an Anthelmintic.

I will now give you a few medical observations, which I believe I did not give you in my last. This last autumn, almost all the children were seized with a dysenteria verminosa, which proved fatal to a great number. After having tried every medicine of the anthelmintic kind that I was acquainted with, to no purpose, I had recourse to a decoction of the bark of the angeline tree, with astonishing success, so that not one child died of that disorder, after having taken a dose or two of this decoction. About four ounces of the bark were put into three quarts of water, and boiled down to two, then a large table spoonful was given to children under two years old, and one and a half, or two, to children above that age. It is given early
early in the morning. They must eat or drink nothing till mid-day. It occasions a degree of griping, such as jalap would give. Next day a purge is given, and it is astonishing to see the quantity of worms that come away. In one child, in particular, no less than twenty-seven worms of the teres kind were voided at one stool.

This medicine I had from an old experienced nurse. There is a large tree of it on this estate, so that I can procure enough of it, should you incline to try it. At any rate, I will send you a parcel of it by the first ship I can find for Leith.

Some time ago, I had a boy under my care, afflicted with a monstrous ascites, attended with a general anasarca. He was about fourteen years of age, and had been ill about two years. Had taken a great many medicines to no effect. When I first saw him, I attempted to give him relief by diuretics, hydragogues, &c. but they rather increased his complaints. At last I tapped him, and let off about seven gallons of clear water. Next morning I ordered him to be plunged in a cold bath, and had him afterwards well rubbed with flannel cloths, and gave him a grain of opium, with seven of camphor. In
the evening the cold bath was repeated, with the camphor and opium. I pursued the same method for seven or eight days successively, and supported him at the same time with proper nourishing food, and a pint of Madeira every day; then I had recourse to the fal Martis. I began with giving him three grains a-day, dissolved in a large proportion of water, to use for common drink, and increased the quantity of fal Martis gradually; so that towards the end of the cure, he took no less than forty grains a-day. At the expiration of two months he was completely cured, and has remained in perfect health for these eighteen months past.
XXIX.

The History of two Cases of Dropsy. Communicated to Dr Duncan by Dr Arthur Broughton, Physician to the Hospital at Bristol.

J——, aged forty, mother of several children, was, on the 10th of June 1780, admitted an in-patient to the Infirmary. She had then a considerable tense tumour over the whole region of the abdomen, in which there was an evident fluctuation. Her legs and thighs were very much swelled, and the skin so tense that it was with difficulty the finger could be made to leave an impression. At times there were slight swellings in her face, arms and hands. She also complained of a bad cough, great dyspnoea, with orthopnoea, intense thirst, great scarcity of urine, and a confluent belly. She had been an out-patient for some time, and using the oxymel colchicum, a decoction with broom ashes, wormwood, juniper berries, &c. but without relief.

Her
Her complaints were of three months standing, and she thinks they originated from cold.

11th, She was ordered an electuary, with two ounces of cream of tartar, to be taken till it has produced three or four stools; and the succeeding evening half a drachm of Dover’s powder.

13th, The electuary purged her, and the powder sweated her profusely. Belly not fallen. Parts equally tense. Passes only half a pint of urine in twenty-four hours. The powder was ordered to be repeated at bed-time; and she was directed to take half a drachm of cream of tartar three times a-day.

16th, Sweated with the powder. Swellings not fallen, nor less tense. Urine not increased in quantity. Dyspnœa and cough still very troublesome. R. Argenti vivi, Mann. utriusque drachmam unam; tere optime simul, donec mercurius apparet, definat; dein adde gumm. Arab. q. s. f. massa. R. Massæ mercurialis semidrachmam, pil. scillitic. sesquidrachmam; m. et in pil. viginti quattuor divid.; cap. duas omni nocte et mane.

19th, The pills keep her body gently open. Swellings as usual. No sleep for the dyspnœa.
The pills to be repeated, and to take every second night an anodyne draught.

22d, Has three or four loose stools every day. Has, for two days, passed four pounds of urine. Belly fallen. Legs and thighs as usual. To repeat the pills, and to take every sixth hour thirty drops of dulcified spirit of nitre. The legs and thighs to be well rubbed with camphorated oil.

26th, Belly still diminishing in size, but no alteration on her legs and thighs. Passes urine in great plenty. Other complaints as before. All her medicines to be repeated.

29th, Belly still less. Legs and thighs as usual. Chufes to become an out-patient.

July 3d, Much as at last report. Medicines to be repeated.

6th, Has for some days omitted her medicines. Belly larger than when she went out. Great dyspnœa. No sleep. Is very anxious to be tapped. To have an anodyne draught with spirit of nitre every sixth hour; and to repeat the pills.

10th, Has taken no medicine. Belly much increased in size.

14th,
14th. Was this day again admitted, and tapped, when eight quarts of water were drawn off. To take half a drachm of bark powder in a glass of water, with a tea-spoonful of the tincture every third hour.

21st. Has taken the bark regularly. Does not observe her belly increasing in size. Legs and thighs somewhat fallen. To repeat the bark every third hour.

24th. Belly not increasing in size. Legs and thighs much fallen. Medicines to be repeated every four hours.

30th. Belly not increasing in size. Legs and thighs almost of their natural size. To take the bark four times a-day.

August 4th. Swellings entirely gone. Has no complaints. Ordered to be an out-patient; to use gentle exercise, and to take the bark three times a-day.

20th. Has used the bark and exercise as directed. Finds no return of the swellings. Is in perfect health. To be dismissed with medicines to last her for a fortnight.

II. W—— T———, aged fifty. About eighteen weeks ago, his legs began to swell; and

A a 2

in
in a few weeks after, he observed his belly gradually to increase in size. At present there is a considerable tumour of that part, with an evident fluctuation; and his legs and thighs, are considerably swelled, and pit on pressure. He complains of frequent cough, with copious viscid expectoration; of dyspnœa, and thirst; and passes his urine in small quantity. He has been taking for some time the oxymel colchicum, and a variety of diuretics and purgatives, but without any good effect. He imputes his complaints to hard drinking.

12th July, To have two ounces of the syrup of buckthorn to-morrow morning, and two spoonfuls of the following mixture every three hours. Rx. Sperm. ceti, V. O. fol. drachmas duas; Aq. cinnamom. uncias duodecim; Spir. Jamaic. Acet. scillit. utriusque unciam unam. M.

15th, Cough and dyspnœa somewhat easier. Purge operated well. Swellings not fallen. To repeat the mixture.

19th, The cough and dyspnœa worse. Belly increasing in size. Urine in very small quantity, and high coloured. To have the mercurial pills and spirit of nitre, as prescribed for the former
former patient, and a common pectoral linctus for his cough.

22d, Has had two or three stools every day. Thinks his belly fallen. Dyspnœa very severe. To have a blister applied to the sternum, and to continue the medicines.

26th, Belly fallen one inch and a half. Legs and thighs much as usual. Dyspnœa somewhat easier. Medicines to be continued.

30th, Belly one inch less than at last report. Thighs and legs much fallen. Cough and dyspnœa much easier.

August 4th, Belly rather less. Legs and thighs much fallen. Cough and dyspnœa gone.

8th, Belly still growing less; but there is still an evident fluctuation in it. Legs and thighs almost of their natural size. Medicines to be continued.

12th, Belly still falling. Has no particular complaints.

15th, Thinks his belly almost of its natural size. Swelling of legs and thighs quite subsided. Has no complaints. Medicines to be continued. To be an out-patient; and recommended to use gentle exercise.

19th, Thinks he has no swellings about him, except
except in his feet towards evening. To continue his medicines.

22d, Has no complaint, but a slight cough. Dismissed to the country, to use gentle exercise.

XXX.

History of a Case of Tetanus successfully treated by the Use of large Doses of Opium. By Mr William Chavasse, Surgeon at Burford, Oxfordshire.

September 27th 1780. Mr T—— B——, about ten years of age, by a fall from a tree, fractured his leg, a few inches above the articulation with the tarsus. By the violence of the shock, the tibia was forced through the integuments. In a short time after the accident, the fracture was reduced, the limb laid in a proper position, the wound dressed superficially, and the patient put upon the antiphlogistic plan. From the day of the accident to the 16th of October,
ber, every thing went on favourably; the wound seemed disposed to heal, the fractured limb was perfectly at ease, and his general health promised a speedy and happy recovery. However, on this day, the patient complained of a slight stiffness of his neck, with a scarce perceptible rigidity of the muscles subservient to the motion of the jaw, but so trivial as to be little noticed by him; and as every other circumstance went on favourably, I attributed it to a cold which the patient had caught by frequently sitting up in his bed without proper covering. The rigidity and stiffness increasing the two following days, made me apprehensive of the attack of a tetanus; which opinion was strengthened by that of Mr Bradley, a very ingenious surgeon now settled at Hartford, and whose kind assistance during the progress of the cure I shall on all occasions be happy to acknowledge. The continuance of these symptoms demanded the use of opiates. Therefore, on the 18th, I sent him an embrocation, with Liniment. fapon. Tinct. Thebaic. utriusque par. æq. directing it to be used with freedom five or six times a-day. But as topical applications alone were not to be trusted here, I gave him three camphorated draughts in
twenty-four hours, with twenty drops of the Thebaic tincture in each. On the following day, the symptoms were somewhat alleviated, and the medicines were continued. The wound, during this period, was not in the least altered; nor was there any other untoward symptom, exclusive of those already enumerated. On the 20th, there was a little dyspnœa: a physician was called in; who made no other alteration in the patient’s medicine, than in reducing the Thebaic tincture to twelve drops to be taken four times a-day, leaving, however, discretionary power to increase the opiate according to circumstances. On the 21st, anodyne cataplasms and fomentations were occasionally applied to the fauces: the rigidity and difficulty of breathing increasing, the laudanum was augmented to twenty-five drops, to be taken every six hours; and as the patient was costive, an enema was thrown up, but without effect. The succeeding day, the jaw was more fixed, deglutition nearly impeded, and his respiration more distressingly operose; added to these, we had frequent and severe subfusus tendinum, and the bowels so obstinately costive as to require the stimulus of two very active clysters before any effect
effect was produced. The Thebaic tincture
was increased five drops to each draught, and
the anodyne cataplasms and fytus were fre-
quently applied. The 23d, the jaw remained
as on the preceding day, but the subsultus ten-
dinum recurred with additional violence; the
wound still retained its former healthy appear-
ance; the laudanum was reduced to twenty-five
drops every sixth hour, the patient being rather
comatose; a stimulating clyster was adminis-
tered, which brought away a small but extremely
foetid stool. He continued much the same on
the 24th, when a terebinthinate clyster was gi-
ven, which not only disposed the bowels to be
more soluble, but likewise induced a very large
secretion of urine. As the coma had now left
the patient, we had again recourse to thirty
drops of the Thebaic tincture for each dose.
The 25th, 26th, and 27th, he continued the use
of his medicine, without any variation of the
symptoms. On the 28th, the right side (the frac-
ture being on the left) became paralytic; the
opiate was increased to thirty-five drops every
six hours; and though the subject was so young,
this dose scarcely produced any sensible effect.
This plan was pursued to the 31st, throwing up
occasionally
occasionally a purgative clyster. The evening of this day, our patient complained of nausea, and, after considerable efforts, vomited a large quantity of pus. November 1st, he took a saline purgative draught, to remove any purulent colluvies that might be lodged in the primæ viæ. This did its duty: the discharge from the wound till this period had been favourable, but was now converted into a corrosive ichor; in consequence of which, I increased the Thebraic tincture to forty drops, and to each dose added two ounces of a strong decoction of the bark. The rigidity of the jaw was much augmented on the 2d, and the subsultus tendinum considerably increased; forty-five drops of the laudanum were now given with the bark, and this plan persisted in till the 14th, without any the least variation, taking care to keep the body soluble by a free use of clysters. On the 15th, the patient complained of a most excruciating pain in his thigh; the difficulty of breathing was much increased, and the subsultus tendinum so violent as to threaten immediate dissolution. Under such a complication of dangerous symptoms, the opiate in a large dose appeared the unicum remedium; sixty drops of the Thebraic tincture
tincture were therefore immediately given. The eventual success of the medicine justified the practice; for, in less than half an hour, the pain and spasms were effectually removed, and the patient thrown into a refreshing sleep. At the expiration of ten hours, he awoke, without stupor, without fever, and with a visible diminution of his late alarming symptoms. The rigidity of the jaw insensibly abated, respiration became perfectly easy, and the wound regained its former favourable state. The opiate was gradually diminished to the 30th, when the subful
tus tendinum and every other disagreeable symptom had left him. The wound healed in a short time, and the patient began to walk about with very little inconvenience, only finding at intervals a pricking sensation near the fractured part. This, however, was exceedingly trivial, and but of short duration; for, in about eighteen weeks after the accident, a considerable piece of the tibia exfoliated; since which to this time, he has been perfectly well, and the deformity, the consequence of the fracture, so very little as not to be discovered but by a very close examination.

XXXI.
XXXI.

An uncommon Case in Midwifery, accompanied with a Luxation of the Maxilla Inferior, occasioned by Convulsions. By Fielding-Beet Fynney, Esq; of Leek, in Staffordshire.

About eight o'clock on Sunday morning, September 7, 1783, a midwife was called to Ann Stonehewer of this town, who not only had slight pains for many weeks, but also the membranes were ruptured before she arrived. She continued with her until Tuesday morning, when she was sent for to another woman in the country. At four o'clock in the afternoon of the same day, I was applied to, and was told, the waters had been continually drivelling from her since Sunday morning. Upon examining her, I found her child presented the right way, and was far advanced in the passage; but as her labour-pains had deserted her, I waited some time, in hopes of their return, at least in some degree; but being too trifling
trilling to afford any material relief, joined to
my best manual assistance, I was obliged to ap-
ply the forceps about nine o'clock, and deliver-
ed her of a large female child. I found there
was another, but as it lay in the natural posi-
tion, I did not assist her until pains came on,
which happened about two o'clock on Wednes-
day morning; and the head had no sooner slip-
ped through the os uteri into the vagina, than
she was immediately seized with convulsions, to
such a degree, that her head was drawn in a
most extraordinary manner backward, and at
the same instant, the round heads of the os
maxillare inferius were thrown out of the glenoid
cavities of the os petrosum. Under such dread-
ful symptoms, I had no time to lose. I instant-
ly applied the forceps, but they did not answer
my purpose so speedily as I could have wished,
therefore I opened the head, to lessen its bulk,
and made use of the crotchet, by which I im-
mediately gained my ends; and as soon as I had
brought away the two placentas, which were
uncommonly large and connected together, my
next business was to reduce the luxated jaw,
which was done in the common manner, by in-
troducing my two thumbs far into the mouth,
and
and pressing it downward and backward. All this disagreeable business was done with the most collected ideas, and the firmest resolution; but my best endeavours to restore her were frustrated. She died before four o'clock in the morning.

XXXII.

*The History of two Cases of the fractured Olecranon, with some Remarks.* By Mr. J. Haighton, Surgeon, London.

I. A woman about forty years of age, in walking along the street, slipped down backwards, and struck her elbow against a stone, with such violence as to render her unable to move it, without excessive pain. Suspecting something amiss at the bone, she applied instantly to a person who practised surgery; and as no tension had yet taken place, it was very easy to ascertain the real state of the parts. On examination, a fracture of the olecranon was discovered,
covered, nearly about half the distance between its extremity and the coronoid process of the ulna; and as the fragment admitted of a very sensible degree of motion from one side to the other, it put the case beyond the reach of doubt.

The surgeon was preparing to place the arm bent, (what he called the relaxing position), as is usual, and indeed proper, either in fractures of the os humeri, or of the bones of the cubit; but on whispering to him the disadvantage of such a position, in the present case, he desisted. Having then placed the arm straight, and applied a roller with pasteboard, to confine the parts in a proper situation, it was laid on a pillow. No tension supervened, nor any thing that could interrupt the cure, which was effected in a few weeks, the patient now enjoying the free motion of her arm.

II. A boy about fifteen years of age, fell down and broke the olecranon. An apothecary in the neighbourhood being sent for, pronounced it only a contusion, and accordingly treated it as such. As some degree of tension had already taken place, he applied a poultice, and
and persisted in its use about ten days. This application was then changed for an embrocation, composed of vinegar and spirit of wine, in which was dissolved a small quantity of crude sal ammoniac. With this the part was bathed several times in the day, for the space of a fortnight. During this treatment, the elbow was kept bent; and indeed he was unable to straighten it, without assistance, from the time of the accident. At this period I saw him accidentally, and, upon examination, I found the case was but too obvious. Several attempts were made to restore the parts to their proper situation, but without success. And notwithstanding a variety of means were made use of to recover the motion of the arm, and to perform a proper extension, I had the mortification to see every endeavour without effect.

Remarks. In the preceding cases, we have an opportunity of observing very different effects to arise from the same kind of accident, according to the particular treatment made use of in each.

In the first, the patient is able to perform all the motions to which the arm is appropriated:
in the last, it is exceedingly limited, and attended with a total incapacity to stretch the elbow.

If we consider the mechanism of the joint, with the attachment of the muscles by which it is moved, we shall find these phenomena admit of a very simple and easy solution. The elbow is a joint admitting of flexion and extension, (pronation and supination I shall pass over, as having little connection with the present case), for which purposes the rounded and pulley-like extremity of the os humeri is received, and moves in a corresponding cavity of the ulna, called sigmoid. The two processes by which this cavity is in some degree formed, are its anterior, called coronoid, and its posterior, called olecranon. In order the better to regulate the degree of flexion and extension, there are two cavities situated at the inferior extremity of the os humeri; one on the anterior, the other on the posterior surface; into these the two processes of the ulna are occasionally received. When the joint is in its greatest degree of flexion, the coronoid process is received into the anterior cavity or fossa; and when in the great-
eighth degree of extension, the extremity of the olecranon occupies the posterior fossa.

In order to communicate motion to this arrangement of parts, muscles are situated in various directions; but the muscle by which extension is chiefly performed, (the triceps extensor for cubiti), being inserted into the extremity of the olecranon, has an attachment peculiarly advantageous and mechanical, as it is thereby at some distance from the centre of motion, consequently less exertion will be necessary to accomplish extension.

When by any accident this process is broken off, two very important changes are induced upon the part. First, the lever that enabled the muscle to act so advantageously is removed. Secondly, the space in which the muscle acted is now shortened. Hence that bony arrangement that was before so favourable to motion is now destroyed, and the muscle by whose agency this effect was produced, has its influence exceedingly limited, at least for a considerable time; and even admitting time to accommodate itself to act in the new and shortened space, as well as to become obedient to the impulse of the
the will, still the state of the bone will continue an insuperable impediment.

Note. The anconæus assists in extending the arm, but being inserted below the olecranon, is not importantly concerned in the present case.

These considerations naturally lead to a judicious and successful practice, the rational intention being to restore the parts to their natural situation, and to preserve them in it. To accomplish these ends, we have to consider what that position of the arm is, that suffereth the two extreme points of the muscle to approach the nearest; or, in other words, what position relaxes the extensor muscle in the greatest possible degree? The extended one is indisputably that position, consequently every judicious surgeon will pay due attention to this in practice; and by the aid of a bandage applied from above downward, with other mechanical means tending to keep the fragments in opposition, and as near contact as possible, he will have every reason to hope for, and expect success.
XXXIII.

Case of Paralysis Rheumatica, cured by Tincture of Guaiac. Volatil. and the application of Caustics. By the late James Johnstone, M. D. of Worcester.

N——, aged thirty, by trade a baker and maltster, came to our Infirmary on the 5th of November 1774. He complained of having entirely lost the use of his right arm, in consequence of a cold which he had taken in April 1766, when, after having been wet to the skin by a shower of rain, he lay down in his wet clothes, upon a malt-kiln, soon after the malt had been put on, and whilst there was a fire under it. In this situation he continued three hours, and slept during the greatest part of that time; but being awakened by one of the family, he felt a violent pain in his ankles and knees, and had lost the use of his legs, so that he was not able to stand. This pain continued
a month, without abatement; but after taking Daffy’s elixir, and rubbing the dew gathered from grass upon the pained parts, in two months more he was able to work again, and did not feel any pain for a quarter of a year, except a little tingling in the elbow, attended with a cracking whenever it was moved. The elbow became afterwards more and more painful, and he continued to work with great difficulty, till old Michaelmas-day 1773. His arm then dropped down, he could not raise it without assistance, and it gave him much pain. He then applied to several of the most eminent of the faculty at Birmingham, by whose advice he was twice bled, took several medicines, and applied fomentations, steams, poultices of bread and yeast, liniments and blisters to the part, without any relief. He was afterwards recommended to St Bartholomew’s Hospital, where he had blisters applied round the arm, at the elbow-joint, for three weeks, used the cold bath for a month, put his arm into the paunches of bullocks newly killed, three or four times in a day, for three weeks, and rubbed on different liniments without any benefit. When he returned to Birmingham, a farrier promised to cure him.
him in a month. He tried him three months, gave medicines, and applied plasters, which, the patient says, burnt the skin off.

After this he was recommended to the Infirmary at Bath, and stayed there some time before he was admitted, during which time he pumped upon his shoulder, which had no effect but making the joint swell, with much pain. When admitted into the Infirmary, he drank the waters, and bathed once a-day, was twice vomited, once bled, and had a lime-poultice, without any effect; and afterwards the water mixed with a liniment applied to the joint every four hours for a fortnight, produced no better consequences. He was dismissed, because not a Bath case. When he came here, he had entirely lost the power of moving that arm, and could not lift it from his side, without the assistance of his other hand. He complained too, of pain both in the shoulder and elbow. The arm was much emaciated, and the pulse sensibly weaker than in the other. The sense of feeling was not impaired in it. In all other respects the man was perfectly well. Having just then seen the volatile tincture of guaiacum recommended in large doses by Dr Dawson, I thought this a good opportunity
portunity to try it, and ordered him immediately to begin with tinct. guaiac. volat. Ph. Lond. half an ounce every morning and evening. On the 7th, the pain in his shoulder was somewhat abated; and from that time, he perceived that the part was gaining strength; and in a week more, he could move his shoulder with tolerable ease. He now complained most of the pain in his elbow, which was quite stiff; and he said, if the pain could be drawn out of that bone, he should do very well. My very ingenious and worthy friend, Mr Ruffell, who attended him with me as his surgeon, proposed a drain from that part, as a means of facilitating the cure; and we agreed, that as blisters had been so often tried in vain, the application of a caustic would be the most eligible method of procuring it. Accordingly, the next day (November 14th) a caustic was applied to the outside of the joint; and when this came to discharge freely, the pain was considerably diminished.

November 23d, he complained, that he had not sweated so much for two or three nights past, as he had used to do since he had begun to take the medicine; and that since the sweating...
ing had gone off, his arm had not mended so fast. I then ordered it to be taken three times in a day, and this was sufficient. He was ordered to continue this method, had a caustic applied to the inside of the joint on December 4th, and continued gradually to grow better, till December 17th, when he complained of heat, thirst, and some soreness in his throat. His pulse was very full and strong. These symptoms probably were occasioned by the long use of a powerfully stimulating medicine. I ordered the tinct. guaiac. volat. to be omitted, the tinct. rofar. to be used for a gargle, and the following electuary to be taken, so as gently to loosen the belly.

℞. Chryystal. tartar.

Sal. polychrest. utriusque unciam unam.

Syr. e succ. limon. q. f. f. electuarium.

By the use of these remedies, with cooling and diluting drinks, his complaints were entirely removed in two or three days; and on the 24th of December, as he could move his arm freely in any direction, and felt no pain, but the little soreness remaining in consequence of the caustic, he was dismissed cured.
THE remarkable epidemic catarrh which prevailed so generally in Britain during the summer 1782, has engaged the attention of many able writers, and has given rise to many different publications. That our readers may have an opportunity of comparing the form which this disease put on at different parts of the country with its appearance on a former occasion, we shall here reprint the account of a similar epidemic which appeared in winter 1775; and at the same time subjoin accounts of the late epidemic, as it appeared in London, in Devonshire in the south, and in Northumberland in the north of England.

I. Account
I. Account of the former Epidemical Catarrh or Influenza, by Dr John Fothergill, dated London, Dec. 6. 1775.

About the beginning of the last month, it was mentioned to me in many families, that most of the servants were sick; that they had colds, coughs, sore throats, and various other complaints.

In the space of a week, these complaints became more general; few servants escaped them, especially the men, who were most abroad; many of the other sex, likewise, and people of higher condition were attacked; nor were children wholly exempted.

The disease, which had hitherto been either left entirely to itself, or had been treated with the usual domestic medicines appropriated to colds, now claimed the attention of the Faculty, and, for the space of near three weeks, kept them for the most part universally employed.

Most of those whom I saw, were seized (and often so suddenly as to be sensible of the attack) with a swimming or slight pain in the head, a soreness of the throat, and all over the body, with a sense of coldness, particularly in the extremities.
COMMENTARIES.

tremities. A cough soon followed, a running of the nose, watery eyes, slight nausea, frequent calls to make water, and some were seized with a diarrhoea.

More or less of feverish heat, inquietude, pain about the breast, praecordia, and in the limbs soon succeeded, but in various degrees. Many were capable of continuing in their usual occupations, under these symptoms; others were obliged to submit to confinement; and not a few to their beds.

The tongue was always moist; the skin seldom remarkably hot or dry; the pulse often full, quick, and harder than one would have expected from such a temperature of the skin.

Several were seized with a diarrhoea: the stools were always black, or of a deep yellow colour; and so were, those, for the most part, which were procured by purgative medicines.

In a few days, every complaint abated, except the cough; this continued the longest of all the symptoms, and, in the fore part of the night, was exceedingly troublesome and vexatious; towards morning generally came on a sweat and easy expectoration.

Those
Those who were seized at first with very copious defluxions from the nose and the fauces, or had a plentiful and spontaneous discharge of black bilious stools, or made large quantities of a high-coloured urine, or sweated profusely, of their own accord, a night or two after the seizure, soonest grew well.

In many cases, it was necessary to take away some blood, the condition of the pulse and vehemence of the cough making it necessary. The blood was almost uniformly fizzy, representing a flat cake of yellowish tallow, floating in a deep yellow serum. Very few instances occurred where the size formed that cup-like appearance which occurs in most of the genuine inflammatory disorders.

By warmth, diluting, cooling liquids, mild diaphoretics, gentle and repeated purgatives, the disease for the most part soon gave way, in subjects otherwise healthy. Sometimes it was necessary to repeat the bleeding; sometimes blisters became necessary, and were serviceable in abating the cough, which was the last of all the symptoms that gave way: after the necessary evacuations, anodynes for the most part had very salutary effects.
In many instances, the disease assumed the type of an intermittent towards its decline: the bark, however, did not generally succeed in curing it. The symptoms, as often happens in bilious disorders, were sometimes aggravated by this medicine. A few doses of some mild cathartic most commonly removed it effectually.

Many who neglected themselves, and went abroad with the distemper upon them, frequently got additional colds, and brought on a fever of the most dangerous kind; a few died phrenitic.

Ancient asthmatic persons were likewise great sufferers for the most part: a peripneumonic fever came gradually on, which often terminated fatally. And of those who did recover, their amendment was slow, and medication difficult.

And indeed it appeared that very few persons wholly escaped the influence of this morbid constitution; for it seemed to aggravate every present malady.

It proved fatal likewise to several very young children, disposing them to violent coughs or diarrhoeas.

Perhaps, however, there is scarcely an instance to be met with, of any epidemic disease in this
this city, where so many persons were seized, in so short a time, and with so little comparative mortality.

Though attempts to ascertain the causes of epidemics are for the most part more specious than substantial, it may not be improper to mention a few facts that gained my attention; to others many more may have occurred, and worthy to be recorded. During the greater part of the summer, in that part of the country where I then was (Cheffield), the air was of the most equal temperature I ever knew. In the space of two months, the quicksilver in the thermometer once rose to 68, once fell to 56; but for six weeks together, it kept between 60 and 66 continually, day and night.

The barometer did not vary much more. The weather was during this time very changeable, much inclining to wet; and though it rained more or less almost every other day for six weeks, yet upon the whole no unusual quantity of rain fell: it sunk into the ground as it fell, and made the earth very soft and miry, but seldom swelled the brooks, or occasioned floods.

During
During this time, horses and dogs were much affected, those especially that were well kept. The horses had severe coughs, were hot, forborne eating, and were long in recovering. Not many of them died that I heard of, but several dogs.

To the consideration of the Faculty in this city is this sketch of the late epidemic submitted, with all due deference; and with a request, that, if the observations they have made do not correspond with this recital, they will be pleased to communicate their remarks while the remembrance of the facts are recent, in order that as exact an account of this disease as possible may be transmitted to our successors.

If those physicians in the country, into whose hands this essay may come, will be so obliging as to mention the time when this epidemic made its appearance in their neighbourhood, and wherein it differed from the preceding sketch, either in the symptoms, or the method of cure, they will likewise contribute to the same good purpose. The united observations of the Faculty at large, must greatly exceed the utmost efforts of any individual, however warm-
ly he may be disposed to promote the utility of his profession.

II. Account of the late Influenza, by Dr D. Monro, Physician to the Army, dated May 30, 1782.

This disorder has been epidemic in many parts of the continent for some time past. But it is only about ten or twelve days ago that I saw any people ill of it here in London, and only within these few days that it has been so frequent.

It commonly begins with sneezing and running at the nose, and more or less cough, attended with fever, a heaviness, and with many a pain of the head and back, or with a weariness and pain in all the bones.

The feverish symptoms have been at first so strong, that most people, except those who had it in a very slight degree indeed, have imagined they were in for a continued formed fever. But generally, when they took immediate care of themselves, in about twenty or twenty-four hours, a kindly moisture, or a profuse sweat, came out on the skin; which either carried off entirely or lessened the fever greatly, and the cough
cough began to abate. Those who attempted to struggle with the disorder at first, generally continued longer subjected to the fever, and the cough was more troublesome, and attended with tightness and uneasiness at the breast, and many of them were obliged to be blooded before they found relief.

Most people have got well within the week, though those of weak lungs, or whom it had affected in a violent manner, are still in a convalescent state.

The blood of every person from whom I have ordered blood to be taken on account of a tightness and pain of the breast, threw up a strong tough inflammatory buff.

Hence it appears, that this disorder is of the inflammatory kind, and ought to be treated in the antiphlogistic method, as the symptoms are more or less violent.

Where the disorder has been slight, it has seldom required bleeding, and all that has been necessary was to make the patients keep in bed while the fever continued, and to use the mild cooling and gentle diaphoretic medicines, such as the wormwood draughts, the pulvis e chelis with nitre, juleps with spirit, Mindereri, and a
few drops of antimonial wine; small doses of a solution of tartar emetic in a cupful of any tepid mild drink, and such like, at the same time that they lived on a mild vegetable diet, and drank balm tea, or lintseed tea, or light lemonade, or barley water, and eat of sweet oranges, which are the only fruit the present season affords; and it was recommended to the sick, if they found a sweat come on, not to check it, but rather to encourage it by the use of some mild tepid liquor.

If there was a nausea or sickness, it was sometimes useful to give a gentle puke; and, if coltive, to give some mild opening medicine.

Where the fever ran high, especially if it was attended with a cough and tightness and pain at breast, it was found necessary to bleed, which generally gave relief; and I have seen but three cases where it was necessary to repeat bleeding, and apply blisters.

I have not seen one case where the disorder proved fatal; and, on inquiry, have heard but of one or two people who died of it in town. Yet I am afraid, that many who have tender lungs, or who have coughs remaining after it, may fall into consumptions, if proper care be not taken
taken to prevent it. I should therefore recommend it to the surgeons of regiments to attend particularly to their men recovering out of this disorder; and if they find that they have bad coughs, to make them live on a mild soft diet, and recommend to them to drink new milk, or whey, or butter-milk, where they can get it easily; if they cannot, to make them drink an infusion of common lintseed, with a little liquorice-root sliced in it, or some such soft mild liquor; and if the men complain of pain and tightness about the chest, to give them some of the mild pectoral remedies; and to take a small quantity of blood from them from time to time, as their cases may seem to require it.

The disorder has attacked people in different forms, and it has been attended with a variety of symptoms in several individuals. But it would be both tedious, and answer but little of my present purpose, to enter into particulars, as the intention of this sketch is to give the regimental surgeons, who have not seen this disorder, a general idea of it, of the means which have been found most successful in treating it, and of the precautions proper to be used to prevent bad consequences.
III. Account of the Influenza, as it appeared in Devonshire in May 1782. By Dr B. Parr. Physician at Exeter. Communicated in a Letter to Dr Duncan.

I have not forgot your queries; but the experience of a single practitioner in a large city was scarcely sufficient to afford you satisfactory information: I have therefore extended my inquiries; and as this has occasioned some delay, so I hope it may be compensated by the more enlarged view and repeated observation. I must acknowledge my obligation to my brethren of the Faculty for their very candid and obliging assistance; and I shall pursue the subject in the order of your queries, without interrupting it by specifying them.

The influenza appeared first in the Poor-house, situated on the north-east side of the city, on an elevated and healthy spot. The first patients were seized on the 23d of May last, and six were affected the first night. On the 24th and 25th, a few individuals were attacked in the town; the complaint increased, and by the 4th of June it became general. It proceeded rapidly about three weeks; in which period, almost every
every inhabitant felt its influence, though the elder and more experienced practitioners think it neither so violent, so putrid, nor so universal as the epidemic of 1762. Towards the end of June, it began to decline; and about the beginning of July, its consequences were only perceived, and a few who had hitherto escaped or neglected it, were affected. I cannot perceive any fresh attack after the 12th or 14th of July.

The autumn of last year was remarkably dry. In the whole month of October, 0.128. of an inch of rain only fell on the ground. The greater part of January was showery, with scarcely any frost. The rain was 3.015. The thermometer, without doors in the shade, from 36. to 54. The barometer, from 28. 39. to 30. 17. Wind chiefly west and south-west. The rain in February was only 1.360.; but there was more frost, and sometimes sleet. Thermometer, from 27. to 54. but commonly from 36. to 46. Barometer, from 28. 36. to 30. 12. Wind frequently north-east, at other times west. In March, the weather was, as usual, variable. The rain 4.029. Thermometer, from 39. to 55. commonly from 44 to 50. Barometer, from 28. 33. to 30. 7. Wind chiefly north and south-west.
In April, the weather continued variable. Rain 4.460. Thermometer from 43. to 53. commonly from 44. to 48. Barometer from 28. 36. to 29. 36. Wind chiefly at east.

May. The first week was fair, but the remainder very variable and uncertain; there was but one day afterwards thoroughly fair, viz. 20th. The rain, in the whole month, was 4.174. which, as it entirely fell in the last three weeks, was a greater quantity than had yet occurred. Thermometer from 46. to 64. chiefly from 50. to 60. Barometer from 29. to 29. 37. Wind very variable.

The beginning of June was chiefly fair; the latter end entirely so. On the 17th, we had a storm of thunder and lightning. It was however at a great distance; and I remember to have observed flashes of lightning in the north-east and south-east at the same time, and they were often alternate. The rain in June was but 1.153. Thermometer from 57. to 76. Barometer from 29. 16. to 30. 15. Wind variable.

In the first fortnight of July, the rain was 2.275. Thermometer about 65. Barometer about 29. 30. Each with very few variations. Wind
Wind variable. Thunder and lightning again on the 15th.

I have thus endeavoured to give you a short abstract of the weather, from the beginning of the year, because its influence is usually slow, and because it probably rather predisposes to than excites diseases. If however I have been too profuse, it has not taken much room. We had no epidemic since the autumn of last year, when a putrid fever was very frequent. In the winter and spring, we were unusually healthy; the small-pox sporadic. In the spring, the inflammatory diseases were not so frequent as usual; and I thought that we did not meet so many pulmonary hecticas as we were accustomed to. Previous however to the influenza, an experienced practitioner, who is himself gouty, observed, that arthritic paroxysms were very frequent; and that those constitutions which had irregular flying pains, and a gouty disposition, then first experienced a regular fit.

I have already observed, that its progress was rapid. It continued about seven weeks, though its greatest violence was from about the 4th to the 24th of June.
Patients were commonly attacked with irregular shiverings, a weight and confusion of the head, with indistinct vision; and, in some cases, with a low delirium, which continued twenty-four hours. There was soon a considerable flow from the eyes and nose; a harsh short cough; a sense of excoriating through the fauces and larynx and œsophagus; and sometimes an aching pain externally down the throat and breast. The languor and debility were considerable, and the attack often so sudden, that there was not an hour's interval between perfect health and extreme weakness. These complaints were sometimes preceded, and sometimes accompanied, by bleedings at the nose, mouth, and anus, by pains in the side, flushed face, and slight peripneumonic symptoms; but the pulse was very quick and low, and often irregular; urine generally high coloured. If the patient went to bed, these symptoms were generally relieved in about twenty-four hours, by a very profuse and long-continued sweat, and a free expectoration; but, without some irregularity, they seldom continued more than double that period, and always left an extreme debility and languor. In one patient, the complaint began with
with a violent hiccup, which lasted some hours; in another, by deliquium and delirium, which continued with little intermission for twenty-four hours. If the patient did not yield to the attack, and retire to bed, the complaint was generally longer in its continuance, and more severe in its symptoms. It has then continued three or four days, and sometimes it has been protracted, by frequent relapses, to ten or twelve. In these cases, the symptoms of peripneumony have been much increased, and the disorder has become highly inflammatory and dangerous. Even those who wished to be careful, were misled by the continuance of the sweat; for to be completely critical, it required to be kept up two or three days; and, after the disease had vanished, the tendency to sweating, on the least exercise, was considerable. In no case were there petechiae or any other eruptions.

Sweating was the universal crisis. The expectoration sometimes assailed it, but never entirely superseded its necessity. Towards the end of the disorder, there was a slight cloud in the urine, but no critical deposition.
The disease was in general uniform. There was little variety, but in the degree of the attack, and in the addition of the few symptoms formerly mentioned. The most material consequences were hæmoptysis, asthmas and consumptions. The others, great and long-continued debility and languor of spirits. The disorder seemed sometimes to be followed with inflammatory pains in the limbs, and exquisite peripneumonies, which required, and were relieved by bleeding; but as these were also the consequence of misconduct during the disease, they can scarcely be arranged among the sequelæ.

Few died of the disease alone. Two men and two women were attacked with pain of the side, and other symptoms of peripneumony, but attended with a very low pulse, and considerable prostration of strength. On this account, they were not bled. Blisters were applied to the side, and they were cautiously supported with cordials; but they were at last suffocated with the sputum, which they had not strength enough to discharge. In one of these cases, there was an evident combination of typhus; and probably the same coincidence may have happened in the
the others. They were of middle age, and sufficiently strong and healthy before the attack. Another man, between fifty and sixty, was attacked with the influenza, which, on the next day, increased with much pain in the head. He was bled to about six ounces. The blood was covered with a greenish crust, but its texture was loose. He soon after grew insensible, and, notwithstanding every effort, died the same evening comatose. A paralytic man, who was obliged to be shifted, when sweating, never recovered the consequences of the disease, and an elderly lady, sunk under the languor and debility which it left. Neither of these people were dissected.

The disease often yielded to light diluting liquors, and confinement in bed. Emetics, however, hastened the cure. Emetic tartar, or the vin. antimon. with the spiritus Mindereri, assisted and promoted the sweating. The spiritus corn. cerv. with an equal quantity of spiritus nitr. dulc. had a similar effect; and when, from negligence or misconduct, the peripneumonic symptoms were increased, saline draughts, with nitre and blisters were frequently employed. Emulsions, spermacereti mixtures and lac ammoniacum were prescribed.
prescribed for the cough; and a quiet night sometimes procured by the elix. paregoric. without any impediment to the expectoration. Where the prostration of strength was considerable, the conf. card. was employed; and, in my own case, as I was obliged to go about, I used to drink Port wine, or porter, even in the mornings, with evident advantage. Purging was not much employed in the simple cases of the catarrh. When used, the best that can be said of it was, that it did no harm. It sometimes protracted the disease, and impeded the recovery. A gentle laxative, however, frequently relieved the load in the head.

I have not been able to learn any case of a second attack, after a complete crisis. Many such instances are indeed related, but they are probably imaginary; for every one that I have been able to trace has appeared so. A common cold, either previous or subsequent to the disorder, has been the occasion of some mistakes; and a relapse, from checking the sweat too soon, of others. 'No practitioner in this town, that I have conversed with, has attended two distinct attacks of the influenza in one patient. We
We very seldom bled our patients in the original and simple disease. When there was a considerable difficulty of breathing, and pain in the side, it was sometimes attempted; but though it did not always relieve these symptoms, it certainly increased the debility, and seemed to retard the recovery. The appearance of the blood was inflammatory, but it was in appearance only. The crust, which was sometimes greenish, was very thin, and the texture of the whole mass was commonly loose. In the relapses of those who exposed themselves too early to the air, the pains were very acute, and relieved by bleeding. In those cases too, the blood was really inflammatory. A lady who had the influenza, complicated with an ophthalmia, was, on account of the latter, bled three or four times, and purged daily. She, however, was not much weakened, and recovered as soon as usual.

The bark was very useful, after the fever had vanished, but was never used during its continuance. Even on the recovery, the cascara was sometimes preferred, on account of the cough, and appeared equally serviceable.
If in an epidemic so very general, we endeavour to distinguish those who particularly felt its influence, we might say that it chiefly attacked persons of a middle age. Old people sometimes escaped it. Young children had it very slightly, and, on that account, were supposed to be equally fortunate. It was, however, observed with some violence in a child of six weeks old. There was no particular mode of living which seemed a security from its attack. Perhaps living freely, or rather drinking a little more Port wine than usual, had sometimes that effect. Camphor bags were worn at the pit of the stomach, but I never heard any boast of their efficacy.

During the progress of the epidemic, the horses were affected with a cold; but those which were bled, and had nitrous showers, were soon relieved. Homer tells us, that the beasts were affected with the plague before the human species; and those who see every kind of learning concealed in his mythology, have gravely told us, that it is really true, in general, and owing to their prone position. But this fact seems, at least, to contradict the commentary.
The usual diseases, both of men and brutes, were much more severe during the progress of this epidemic. I have not been able to find, that either the dogs or cattle were affected.

IV. An Account of the Influenza, as it appeared in Northumberland, in the months of June and July 1782. By William Scott, M. D. at Stamfordham.

The epidemic disease, commonly known by the name of influenza, has appeared under two, or rather three different shapes, in this neighbourhood. It was first observed at Newcastle upon Tyne, on or about the 1st of June last, and in a very few days spread over all this country. At its first appearance, vast numbers were seized with it, almost at the same time; and it appeared at first with symptoms somewhat like what some authors call the catarrhal fever; such as sneezing, running at the nose, heaviness, heat, fever, pain of the head, back, breast, &c.; and, at times, patients complained also of pains and weariness over all the body, with a very troublesome cough, attended often with tightness and uneasiness
uneasiness at the breast; and some few, at its first appearance, had also stitches in their sides.

While it continued to have these appearances, which was for betwixt three and four weeks, it was treated something in the common antiphlogistic manner; that is, by bleeding more or less, as the symptoms seemed to indicate; cooling neutral medicines, such as nitre, the common neutral saline draughts, the vin. antimon. and tartar emetic, in small doses, &c. together with drinking plentifully of warm diluting liquors, which generally produced sweating, which often was observed, under the above circumstances, and at this time, to be of the greatest use. The cough was treated with the common pectorals and oily emulsions; but I could not observe they had almost any good effect, unless after proper evacuations, &c. I found gentle opiates at bedtime, in general, answer best for the cough; and to the few who at this time had stitches, blisters applied to the part affected, after bleeding, answered well. Some had also at this time a considerable degree of nausea and sickness at the stomach, towards the beginning of the disorder. To these it was common to give a gentle puke, which seemed to do good.

While
While the disease continued in this form, few or none died, and most of the people had it slightly, and soon got well; and it was in this form, when most here were seized with it. The blood taken away at this time often had something of a buffy appearance; but the disease seldom required a second bleeding; and by far the greatest number were not blooded at all.

In about three or four weeks from its first breaking out here, the disorder gradually began to put on, in a great many cases, a different kind of appearance; for, together with several of the above mentioned symptoms, patients had the appearance of something pleuritic, as many of them had stitches in their side, and often also through their breast and trunk of the body. However, then, their pulse was seldom or never hard, or even very firm; and it was soon observed, that they did not bear bleeding well, as they seldom could bear a moderate bleeding above once, or in a very few cases twice, with advantage. Nor was it observed in general, that bleeding much relieved any of them, under the above circumstances; but blisters applied upon the parts affected, together with opiates at night, to moderate the cough, gave relief. The neu-

Vol. IX. D d

trals
trials they best bore at this time were something very mild, such as the common saline draughts, the decoct. salin. &c.; and it was observed in those who even had the pleuritic symptoms the most, that although some of them had a little buffiness upon their blood at the first bleeding, yet that it generally disappeared the next bleeding, although commonly without any abatement in the disorder; and in some few cases, I observed in the second, or perhaps third bleeding, that not only the buffiness disappeared, but that the blood, after standing some time, had a dark grumous or blackish appearance, particularly towards its bottom, upon its being turned upside down in the basin in which it had been taken.

I observed also some of my patients about this time to have, along with the above pleuritic symptoms, a certain flatness, lowness, oppression and anxiety, not easily described in our language, but what some Latin medical writers seem to call "oppressio et anxietas circum praecordia." While the disorder continued in this way, I lost three patients in it, two of whom were about seventy years of age, the other a young woman of about twenty. They died, as far
far as I can now remember, in or about the twelfth or fourteenth day of the disease. Whilst the disorder was in this state, some few here were also seized with sore throats, which had a good deal the appearance of the common inflammatory sore throat, (the cynanche tonsillaris of Dr Cullen). But bleeding, in general, in this case, did not answer. Blisters, however, applied to the back of the neck, mild detergent gargles, and the vapour of warm water received into the fauces, did good; and in some cases, where the swelling appeared externally, poultices were also applied with advantage.

We are now arrived to about the last week of July, when the disorder here seemed still gradually to run more towards the low and flat, and to verge somewhat still more and more towards the putrid; so that from this time I bled none, or next to none of them; and although several still had stitches, blisters were applied, and opiates given at night. If the cough was troublesome, and when very low and flat, which many of them now were, I gave wine and cordial medicines, such as the following. \[ \text{Rx. Decoct. salin. libram unam; Confec. cardiac. drachmas duas; Tinqt. aromat. sesqui- drachmam; cap. unciam unam tertia quaque} \]

\[ \text{D d 2 hora;} \]
hora; or something of the same nature, making it more warm and cordial, or more of the common mild neutral or antiseptic, just as the pulse and vis vitæ seemed to require. It continued pretty much in the way last described, till about the second week of August, when it, in a great measure, began to disappear here; and during this last period I lost no patient in it, although several of them were ill for a considerable time. At this last period, and indeed all along from the beginning, several people were very apt to have returns of the disorder at times, when they thought themselves in a good measure free from it, or at least in a fair way of soon being so; and many had relapses of this kind, two or three different times, and were generally worse and worse in every return.

This epidemic appeared in Edinburgh in the beginning of June 1782. In a very short time, at least three-fourths of the inhabitants were affected with it. The rapid progress which it had was nowhere more remarkable than in the Castle. Almost the whole of the regiment of Southern Fencibles who were in garrison there being affected with it, in the space of a few days.
days. The symptoms with which it appeared, corresponded very exactly to the description given by Dr Monro. In general, however, it was very slight, and almost no medicines were employed, excepting gentle diluents to promote the natural diaphoresis, which commonly terminated the severe febrile attack at its commencement. It was remarked, that these patients, from whom it seemed necessary to draw blood, had the slowest recovery, and that too, although the blood drawn was covered with a thick buffy coat. But whether this was a consequence of the evacuation, or proceeded from the disease being in these cases the most violent, we will not pretend to say.

* * * *

The Reverend Dr Adamson of St Andrews, in a letter to Dr Duncan, gives the following account of a large pointed piece of lead being swallowed by a boy of seven years of age, and remaining in his stomach for upwards of forty hours.

On Thursday the 21st of October 1784, at twelve o’clock noon, my son Robert, about seven years of age, came home from school, crying
ing and coughing incessantly. He told me, that he had put a lead pencil into his mouth, and another boy having made him laugh, he had swallowed the pencil. He complained of pain under the sternum; and this, he said, made him cough. The course of the pain descended quickly, and the cough ceased. From this, it was, I thought, evident, that the lead had got down into the stomach.

As from the accounts given me, I supposed the pencil to be of a considerable size, another boy having shewn me one, which, he said, was of the same shape and size with what Bob had swallowed, I durst not venture to direct an emetic. Nor did I think it safe to accelerate the motion of this pointed body through the small intestines. What occurred to me as most expedient, was to keep the bowels as full as possible, that the lead might have a chance of slipping along, without injuring the intestinal canal. As he was fond of oat-meal porridge, I made him frequently eat as much of these as he was able; and as motion hurt him, he was laid on a bed: He had no difficulty either of respiration or deglutition, nor any complaint of any kind, excepting only a little soreness now and then.
then about the region of the stomach; and he slept well during the night.

On Friday the 22d, he went to school as usual, took at intervals plenty of porridge, and told me that he sometimes felt a soreness about the umbilicus, from which I concluded, that the lead had passed into the intestines. His pain was not considerable, and he slept well all the night.

On Saturday the 23d, a little after seven in the morning, he came to me with great joy, bringing the lead in his hand. His account of the matter was, that when he awaked, he felt something sore just at the pit of the stomach; that after a full inspiration, he made a great effort in the way of coughing, which brought the pencil up into his mouth. He eagerly caught it with his fingers, and threw it upon the bed. I measured the pencil carefully. It was a piece of solid lead, about a quarter of an inch square, and about an inch and an eighth in length. It had been forty-three hours in his stomach. In the discharge of it, the parts through which it passed had not been injured in the smallest degree, as he had no inconvenience afterwards.

D d 4

In
In the month of June last, there was read at a meeting of the Royal Society, an account of some experiments upon cold, made at the Macfarlane Observatory of Glasgow College, by Patrick Wilson, F. R. S. Ed. and assistant Professor of Astronomy there.

From these experiments, it appears, that the separation of hoar-frost from the atmosphere, in the night time, during intense frosts, is attended with a constant production of cold. Several different substances were exposed to the open air, upon round boards, two feet in diameter, placed some feet from the ground. Upon these thermometers were placed near to the leeward side, whilst another thermometer was hung at the same elevation in the open air, a foot to windward. Mr Wilson found, that when the sky was serene, all these substances attracted hoar-frost, but ceased to do so as soon as clouds or any other general fogginess formed over head. In the first case, the thermometers on the boards pointed always lower by several degrees, than the one in the air to windward. But in the second case, when the heavens were overcast, they
they all quickly came to the same common temperature.

The remarkable excess of cold at the surface of the snow, which sometimes is found in intense frosts, and which was first observed by Mr Wilson in 1780, owes its existence, in Mr Wilson's opinion, to the separation of hoarfrost also, and not to evaporation.

* * * *

Mr William Kinnaird, apothecary in Edinburgh, an ingenious and intelligent chemist, has of late made a great number of experiments and observations on the temperature of the atmosphere, and on the vicissitudes to which it is subjected from different causes. He read a paper upon this subject in the Natural History Society of Edinburgh, on the 12th of February 1784; and he has since prosecuted his experiments on this subject with uncommon industry during every season of the year. Among many important conclusions which he has drawn from these experiments, we shall here present our readers with the following.

1st, When the general temperature of the atmosphere is at or below the freezing point,
the surface of the earth, and of most other bodies, is for the most part some degrees lower than that of the open air, at the distance of one or two feet, or even of a few inches.

2d. This difference is greatest when the cold is most intense, the air clear and calm, and the general heat decreasing, or at least the cold of the surface increasing, which most frequently happens between the setting of the sun and a little after it rises.

3d. It is most remarkable on the surface of snow, when covered with hoarfrost, and on other bodies where hoarfrost most abounds. In such cases, I have often found the surface to be seven degrees colder than the air at the distance of two feet; and, in one instance, the difference was no less than fourteen degrees at the distance of eight or nine feet.

4th. The difference between the temperature of the air and the external (or at least the upper) surface of solid bodies is generally in proportion to their capacity for attracting hoarfrost; e.g. the surface of dead wood, or the decayed parts of vegetables, is, in such cases, apt to be colder than that of living vegetables.

5th.
5th, The surface of wood, and other solid substances, which attract and imbibe water when exposed to the open air, is, in such circumstances as mentioned in prop. 1. sometimes three or four degrees colder than the air, even when there is no hoarfrost visible; while glass, resinous substances, and metals, seem to produce little or no difference in the temperature from that in the air.

6th, But an additional cold takes place on the surface of stones, glass, bodies covered with resinous matter, woollen cloth, rusty or tarnished metals, and even polished metallic plates when hoarfrost happens in any degree to be deposited on them; which sometimes is not inferior to that produced on the surface of such bodies as attract or absorb water.

7th, Even the glass of the thermometer is liable to produce this change; for when hoarfrost is collected to be seen upon the bulb, I have always found that a thermometer was lower than others in similar circumstances which had none adhering to them; and that this difference was greatest where the bulb was largest, and the hoarfrost thick. In like manner, when the hoarfrost was carefully wiped off,
the mercury of the thermometer never sunk so low as it had done, till the hoarfrost again began to appear.

8th. When the atmosphere is perfectly clear, thermometers suspended in the air are not liable to be affected with hoarfrost, even when such as lie upon the ground are entirely covered with it; but when somewhat foggy below, and clear above, the thermometers in the air are apt to be encrusted with it, in like manner as those on the ground, though in an inferior degree.

9th. In such cases, although the cold be ever so intense, the difference between the temperature of the surface of the earth or snow, and that of the air, is not so great (at least in so far as we can judge by the thermometer) as when the air is perfectly serene.

10th. A thermometer covered with an amalgam of mercury stood some degrees above others, whose bulbs were exposed naked, and in the same situation, whether hanging in the air, or laid upon the snow.

11th. If a piece of the thinnest cloth or paper be spread on the surface of the snow or hoarfrost, or if covered with a thin metallic plate, a thermometer laid upon them will not sink so
so low, by some degrees, as it would do if placed on the naked surface.

12th, When any part of the surface is excluded from the external air, it immediately becomes warmer, and continues to be more so than those parts that are freely exposed, and frequently acquires nearly the same temperature with the external air. Thus, if a glass bell, or any other concave body, be placed over a thermometer lying on snow or hoarfrost, which is colder than the air, it immediately rises, whether in the day or night.

13th, The internal surface of many bodies, even when exposed during the most intense and increasing colds for any length of time, is considerably warmer than the air in which they hang, the bodies on which they may be laid, or their own external surface; and their internal heat is nearly as much above the temperature of the air as that of the external surface of most other bodies is below it.

14th, The bodies whose internal surface I have found to be in their temperature most above the air, were those that are least apt to attract moisture, viz. metallic vessels, when well polished within, such as pewter tankards, candle moulds,
moulds, white iron cases, woollen, silk, cotton, or linen cloth, bladders, wooden cases, &c. when dry.

15th, The order in which the interior parts of these substances retain heat, or resist the cooling process which is going on without, is nearly the same as enumerated above. Flannel or woollen cloth was in many cases equally efficacious as polished metals for a good many hours; but none of them are permanently so, excepting metallic substances, as above described, at least when the temperature of the air is near or below the freezing point. For which reason, most of the experiments I made with a view to show the nature or causes of the variations in the heat of the atmosphere, have been by placing the thermometer within metallic vessels, excepting what related to the difference between the air and surfaces of most other bodies.

16th, Metallic vessels lose this property in a great degree, if not entirely, when they become tarnished or rusty; and in like manner, cloth and other substances, as soon as they imbibe moisture to a certain degree, lose it altogether. In such cases, these substances readily acquire the
the same temperature with the common air, or other bodies with which they may be in contact.

In time of frost, the temperature of the surface of bodies is raised, or the difference between that of the earth and the air diminished, by the following circumstances.

17th, By a fall of snow or hail.

18th, By a fog not accompanied with a clear atmosphere above, and especially if it be general, or precede a fall.

19th, By a clouded atmosphere, or even by a single cloud, if vertical, or nearly so.

20th, By wind, especially if considerably strong, though the atmosphere be perfectly clear.

21st, By a rapid increase of the general heat, though still below the freezing point, and likewise serene.

22d, In the above circumstances, the temperature of the snow is sometimes higher, even for the greatest part of a day, than that of the air; and on such occasions, the hoarfrost disappears very quickly.

23d, When the general heat is increasing fast, especially in the time of thaw, and in the summer
summer season, the phenomena which take place in regard to the heat of the air, the surface of solid bodies that attract moisture, and a variety of other substances, most of which have been already specified, are considerably different, or opposite to what has been narrated above.

24th. Such bodies as are, on their external surface, colder during the night, or while the cold is on the increase, are, during the heat of the day, some degrees hotter than the circumambient air; examples of which I have perceived in the surface of the snow itself, as formerly mentioned; but the most striking and numerous instances are what I have observed, during the course of many months, on the surface of a fir board placed on the outside of a window exposed to the north. This board, though soaked with rain, visibly moist on the surface, or even covered with water, was frequently warmer in the day than the surrounding air at a little distance, though colder than the air throughout the night.

25th. The difference which most commonly takes place in regard to the superior heat on the surface of a thin piece of wood in summer, or in the warmest days in winter, is not less than what
what takes place between the air and surface of the snow, &c. in winter, when the cold is upon the decrease.

26th. In calm weather, either when the clouds are low, or when there are no clouds at all, but more especially if there happens to be a fog in the morning, which is dispersed in the forenoon, the atmosphere becoming clear, the surface of the board frequently comes to be six or seven degrees warmer than the air by mid-day, and the difference gradually diminishes towards sunset, when the heat of the air and board come to be nearly the same.

27th. In hot days, when the night is considerably lengthened, especially towards the autumnal equinox, the surface of the board is generally as much colder than the air through the night as it was hotter in the day, which is frequently two or three degrees of difference on either side; and in those days that are accompanied with a fog in the morning and evening, the difference between the day and the night is always the greatest. In such cases, I have seen the glass of the thermometer so much covered with dew, that the mercury could not be seen till wiped; and then I have observed it four degrees below
below the temperature of the air, though somewhat above the freezing point.

28th, There are however various days in summer, when the surface of the board is never hotter than the air; and sometimes, in clear days, I have observed it one or two degrees colder than the air; but this is seldom the case, and it most readily happens after a day of continued rain, or when there has been previously thunder in the neighbourhood.

29th, This also happens more readily when there is a considerable breeze of wind, and the day cold in regard to the season, or natural influence of the sun.

30th, When the heat of the surface is greater than that of the air, clouds have always a tendency to bring them nearer to an equality; and, immediately before a shower, if a thick cloud has continued a considerable time, the temperature in both is, in general, if not quite equal, at least almost so.

31st, In the evening, about sunset, or a little before and after it, the air and surface are just of the same temperature; and different thermometers, which vary considerably, though in the same situation, throughout the day, frequently stand
stand exactly at the same degree when the sun sets.

32d, Although the surface is generally colder in summer as well as winter during the night, if the atmosphere be serene and clear, yet, when cloudy, there is no difference. So remarkable is the effect of clouds in this respect, that I have almost constantly been able to know, by looking at two thermometers thus differently situated in the night, whether the atmosphere was clouded or not, and whether the clouds were partial or universal, before looking out from the window.

33d, Water, either on the board, in a basin, or in a bottle, whether open or stopped, for the most part causes a diminution of heat; but this is more remarkably the case in cold than in hot weather, in the night than in the day, and, if in a bottle, when open than when corked. However, on various occasions, it is productive of heat during the day in all these circumstances, and most frequently when inclosed, whether in a metallic case, or glass bottle; and the difference is occasionally from one to four or five degrees in the forenoon, it being then found to heat faster than the air.
34th, Spirits of wine had little effect in altering the state of the thermometer in one way or other, though shut up either in glass or metallic vessels, at least as far as I have observed. The experiments were made when the air was nearly about the freezing point.

35th, On particular occasions, when the heat was increasing fast, the thermometer placed in a metallic vessel was observed to rise five or six degrees above the temperature of the air, while it was eight or ten above that of the surface. Thus, I have seen the temperature of the air at mid-day 32, snow 29, and the metallic tankard 37; all of which continued nearly the same about three quarters of an hour: the heat of the air about one o'clock was 33 ½, snow 32, and the metallic vessel 39 ½. On other days, similar differences took place when the thermometer was wrapped in flannel, which always happened towards mid-day, or when the temperature was advancing uncommonly fast.

N. B. In the former of these days, the surface of the snow did not exceed 24 degrees at half past eleven, and in less than an hour and a half it rose to 32.
General Observations.

When there is the greatest difference between the temperature of the air and the surface of solid bodies which attract water, the greatest extremes either of heat or cold, or the most sudden changes of the temperature of the air, take place. Thus, we have the most intense and permanent cold when the ground is covered with snow crusted over with hoarfrost. In a foggy evening, whether the temperature be above or below the freezing point, the cold generally increases very fast after sunset, if a general serenity ensues: in like manner, the most sudden increase of heat takes place when a morning fog is clearing up; and so soon as it is entirely dispelled, which is frequently before ten or eleven o'clock, if not succeeded by any clouds in the higher regions; the heat of the air is then frequently at its greatest height, though the atmosphere should afterwards continue serene.

2d, When the difference between the temperature of the air and surface is least, the heat of the atmosphere either comes nearest to its medium state, or is the least variable. In winter, when
the air is considerably below the freezing point, and the cold increasing, the formation of clouds immediately renders it considerably hotter; and when a fall takes place, the temperature is for the most part raised to 32. or near it. But, on the contrary, in summer, or when the heat is considerably above the freezing point, clouds and rain generally cool the air from two to eight, or ten degrees, more or less, according to their extent and density, or sudden formation of the clouds, and their being succeeded by rain or not. When a drizzling and continued rain takes place, the temperature of the air is exceedingly uniform, sometimes not varying two degrees during a whole day and night, even in summer: in like manner, there are many days, when neither clouds nor fog appear, during which the temperature is but little more variable.

3d. As the temperature of the air is almost constantly varying when fogs take place in the morning and evening, and when clouds are partial through the day, so the air seems to be equally subject to variation in regard to its taking up or giving out water. If we continue to inspect such clouds for a few minutes, we will readily
readily perceive them to be growing thicker and darker, or more rare and whiter; forming and increasing in size, or decreasing and entirely disappearing; all of which are very much connected with the changes in the temperature of the air. During the course of the day, when a continued fall does not take place, there is almost a constant solution of water or evaporation from the surface; and in the night, a separation or deposition is nearly as general, at least when the weather is cold, or only of a medium heat. In summer, especially during the day, clouds, while they diminish heat, check what is called evaporation; but in winter, when the temperature is below the freezing point, both evaporation and heat are increased, at the same time that they appear or are forming. In cold weather, especially after sunset, the atmosphere becomes generally serene, while the cold is on the increase, in like manner as, in the warmer seasons, it becomes serene and warm at the same instant, during the forenoon. In the former case, the clouds appear to fall gradually to the earth, in fog, dew, or hoarfrost; in the latter, they first rise, and then disappear.
From these experiments and observations, it appears, 1st, That the vicissitudes in regard to the temperature of our atmosphere, in most cases, do not depend on the emanation of heat or cold from bodies at a distance, but have their origin in those parts where they are most sensibly felt, and depend upon the instantaneous operation of some local cause, which we shall call a heating or cooling process.

2d, That those heating and cooling processes chiefly operate upon the surface of the earth, where it is fully exposed to the open air, though seemingly in some degree also in those parts of the atmosphere where clouds are formed, and where vapours are recent or first seen; and consequently that it is intimately connected with some peculiar arrangement or state of water in regard to the air.

3d, The facts narrated in the first eight propositions, obviously show, that the separation of water from the air, is on many occasions either the immediate cause of the local cold, or very intimately connected with that cause. The two propositions which follow these, contribute to render it more obvious, since the cold did not generate so fast when the deposition was retarded,
ed, or the separation totally prevented, for want of the aid of the attraction of some body which has a great affinity for the particles of water contained in the air. The succeeding experiment serves to show, that the cooling process could not go on, although a part of the air was in contact with the surface, when a communication with the atmosphere at large was cut off, seemingly because the inclosed air having precipitated all the water it was disposed to part with, must have a fresh supply from that which surrounds it in a supersaturated state, in order to keep up the cooling process.

By the 13th, 14th and 15th experiments, it would appear, there must either have been a heating process going on in the interior cavities of these bodies, or that the superior heat in them depends on their being excluded from a free communication with the external air, while the cooling process is operating, or it may depend in part on both. But in whatever way this is effected, we see by proposition 16th, that a mixture of water with the internal air, or some communication with the external air, through the medium of water, destroys the property
property which such bodies have, of resisting a cooling, or aiding a heating process.

By the 17th, 18th and 19th propositions, it is rendered probable, that the general heat of the atmosphere can only be reduced to a certain degree; for when one part is much cooled, another would seem either to be heated, or at least not to be cooled in the same proportion. Since cold is produced in summer by clouds, we need not doubt but they have a direct tendency to generate cold; yet in winter, though they cool the upper regions, we find they sometimes warm the surface of the earth, seemingly by removing the heat of the cooling process, i.e. by attracting the water of the atmosphere upwards, in like manner as the snow; when it is serene, has a tendency to bring it down, and so leaving the lower stratum in a capacity for taking up what had formerly been precipitated, would seem to bring on a heating process.

The twentieth and five following experiments serve, in a considerable degree, to prove the converse of this general proposition, which we have endeavoured so far to explain, viz. that the chemical solution, or an intimate union of water with the air, is as much either the mediate or immediate
immediate cause of heat, as the dissolution of this union is productive of cold.

The facts mentioned in propositions 28th and 29th may readily be reconciled to this hypothesis, providing we suppose, that evaporation may take place, or that water may be mixed with air, when there is no proper chemical solution, which is rendered probable, by what is mentioned in the 30th, 31st, 32d and 33d propositions. Nothing is more striking, than the different, and even opposite effects of evaporation, in regard to heat, as it happens to take place in different days, in the day or in the night, and when the heat of the air is great, or otherwise.

The changes which take place in regard to the general temperature of the air, &c. as specified in our general observations, perfectly correspond with the view which we have taken of these that are more particular, and will also, along with the former, serve to lead us to a theory, which we think may suffice to account for most of the phenomena, or at least may serve to direct us to some further useful experiments and observations.

Here it will be proper to observe, that the most remarkable changes of temperature in bodies,
dies, are intimately connected with some other change, either in regard to their consistence, or the number or proportion of their component parts.

Although we generally consider these bodies which are called homogeneous, to be exactly the same, whether in a solid, fluid, or permanently elastic state, yet strictly speaking, this is by no means the case; for we may readily perceive, there is a considerable change in regard to many of their properties, in each of these different states, which we may also affirm in regard to the different intermediate degrees of consistence; therefore, in all cases where a change of temperature takes place, independent of a direct and regular communication from a heated body, to any other, we are inclined to consider it as the immediate effect of composition, or decomposition, which are the result of the different powers of attraction, which various kinds of bodies, or the different parts of the same kind of matter, have for each other.

Some bodies attract others in such a manner as to adhere together, and to retain their power of cohesion, while they remain entire, and continue in every respect, excepting what relates to their
their size and figure, the same as formerly. Others, while they mutually attract one another, are, at the same time, entirely decomposed; so that neither of them remain the same body after as before mixture: in this case, they are frequently united more closely; or by a much greater force, than that by which the particles of either were combined in their former state. Between the most perfect chemical attraction, and that which entire bodies have for each other, there are a great many intermediate degrees; and all compounds or mixed substances differ from each other, in respect to their relation to heat, seemingly as much as they differ in regard to the force of attraction or cohesion by which they are united and continued in a state of mixture or of simple aggregation.

Heat or fire, we suppose to be a primitive element, or at least a body sui generis, which has the property of expanding, and seemingly of separating the constituent parts of all homogeneous bodies; and likewise, in many cases, their component parts considered as chemical mixts. It would also appear, in various respects, to be subject to the same general laws, with regard to mixture, as other fluids are, especially those which
which are permanently elastic or volatile. It diffuses or expands itself in all directions, and penetrates all bodies in such a manner, as to bring those which are contiguous, very soon to an equal temperature; yet all are not equally affected in the same time, or by the same quantity of fire, some requiring vastly more than others, to bring them to the same degree of sensible heat. This difference is often the effect of a change of the texture and consistence of the body; but it also frequently depends on a peculiar property which some bodies may be said to have, of combining with, or countering the ordinary powers of elementary fire, independently of any change as to their former consistence.

Homogeneous bodies, the sensible heat or temperature being given, universally contain more latent or absolute heat, when fluid, than when in a solid form, and still more when converted into an elastic vapour, providing these changes are effected by heat alone. This was first discovered, and has been fully illustrated by Dr Black.

From many experiments which I have made, I have always observed, that these bodies which
are commonly called elementary substances, such as air, water, acids, pure calcareous earths and metals, contain much more elementary fire, (or have a greater capacity for heat), than most of the compounds into which they enter, at least where an intimate and durable chemical union takes place.

All compounds which are mechanical, imperfect chemical mixts, or these in which the component parts have a weak attraction for each other, so far as I have ever observed, contain more elementary fire than these where the component principles are united by the strongest chemical affinity.

Hence we are led to suppose, in general, that bodies, the more dense they are, and the more intimately their parts are united, either considered as aggregates or chemical mixts, the less elementary fire they contain; and, on the contrary, the more rare and less durable they are, the more they possess, or the greater is their capacity for containing heat, in a combined or latent state.

In order to apply these observations to the vicissitudes which take place in regard to the temperature of the air, it may be observed, that our
our atmosphere is a compound fluid, consisting of dephlogisticated, and other kinds of air, water, electric matter and light, besides elementary fire. But we shall at present confine our observations chiefly to the properties of water and atmospheric air.

Since water, in the form of a pure elastic vapour, contains much more heat than when in the form of an incondensible fluid, or in a solid state, the greater degree of cold which so often takes place on the surface, has generally been supposed to be the immediate effect of evaporation; because the vapour, when formed, its capacity for heat being much greater than that of water, must absorb a quantity of sensible heat from the bodies with which it comes in contact, in order to bring them to the same temperature.

This we are well assured is the case, in regard to vapour produced by a boiling heat; and we have no doubt, that incondisible evaporation is also productive of cold; but we have no proof, that the effect of the latter proceeds from the same cause which operates in the former. Why should water, in general, require 212 degrees of heat in the air, and 90 at least in vacuo, to give
give it this increased capacity, if on other occasions it acquires the very same when the heat is even below the freezing point? We know, that heat is the cause of the formation of vapour, produced from boiling water; for we see it forced into the water ab extra; and when it can receive no more, the surplus is exhausted in the formation of the elastic fluid; but here we see no such cause applied. When water boils, it is not rendered colder by the steam that is formed, it being only prevented from receiving an additional heat; but here the water must be robbed of part of its heat, in order to form the vapour even when its former temperature is otherwise diminished; for it was often found, that the greatest cold was produced seemingly by evaporation, when the temperature of the surrounding bodies were decreasing, as well as that of the water. This therefore seems rather to be the effect of a cause somewhat more general, or a different kind of cooling process; for it is not very likely, that the effect of a heating power applied, and also of a cooling process, should be exactly the same, merely because they agree in producing an invisible fluid which arises from water. It is probable, that vapour,
in the former case, is formed by the intervention or mixture of fire and water alone; but, in the latter, as there is a deficiency of fire to convert the water into vapour, we presume it must be assisted by the interposition of some other fluid, to separate and carry it off from the general mass; consequently we have equal reason to suppose, that the vapour being materially different in the latter case, it may be productive of cold from a very different principle. Besides, we see from the preceding experiments on the temperature of the air, that evaporation is often accompanied with an increase of heat.

But, allowing this doctrine all its supposed force in regard to its power of cooling the surface, it would follow, that the condensation of the same vapour must be productive of heat; whereas the reverse is often, if not for the most part, the consequence. The freezing of water, when the temperature of the air is two degrees above it, which is sometimes adduced as an instance of the power of evaporation in producing cold on the surface, is certainly the effect of a very opposite cause; for this frequently happens, when the body upon which the water freezes is attracting it from the air. Besides, we still want facts
facts to prove, that vapour can rob a body of more heat than what is necessary, to bring that body to its own temperature. Steam is never sensibly hotter than the water from which it comes; and besides this, the consolidation of the water in the act of freezing ought to raise its temperature; whereas the fact is quite analogous to many others which have been mentioned, and may be accounted for upon the same principles which we mentioned, and now proceed to illustrate.

I was first led, some years ago, to suspect the generality of the doctrine concerning evaporation and condensation, from an inaccuracy I had often perceived in the mode of explaining this doctrine, where the effects of simple liquefaction and condensation were applied to illustrate these, which took place in consequence of mixture, such as the heat produced by mixing vitriolic acid, and the earth of bones, or the cold produced by a solution of sal ammoniac in water, the heat produced by a solution of caustic alkali in water, which I always considered as leading to a different and more general principle, being only considered as an exception to this hypothesis. What I frequently observed
to happen in the distillation of the caustic volatile alkali, and in the production of other kinds of gas, where heat is produced, when cold would rather have been expected, together with various remarkable effects on the temperature of many other mixtures, led me to consider the doctrine of heat in a more general point of view. When the alkaline gas passes first into the receiver, a degree of heat is produced far greater than what is employed to bring it over, which chiefly takes place in the upper part of the receiver, however large it may be, or before any of the alkali is condensed; and when the condensation is begun, by means of a little water coming along with it, it is much colder below than above; but vitriolic æther, as soon as it comes into the receiver, always heats its under part, and that of the neck of the retort, while the upper part of both remains cold. The former of these mixes readily with atmospheric air, at least with some part of it, thereby forming a chemical compound, but the latter is only mechanically diffused in it; therefore the heat produced by the one, seems to be entirely the effect of mixture, while that of the other is the effect of condensation.
COMMENTARIES. 453

Water, when raised in an invisible form, by insensible evaporation, may be supposed, in many cases, to resemble the pure caustic alkali; and when raised into vapour, by a boiling heat, to resemble the æther.

I saw, upon mixing any of those bodies, which are commonly called simple or elementary, with any other of that kind, that in all cases a greater heat was produced than in any other case; and was consequently led to suppose, that all such, not only contained most elementary fire, but that the capacity of the compound formed by their mixture, must be less in proportion to the heat given out when mixed. In this I was the more confirmed, when I found that cold was produced by dissolving each of the neutral salts in water, one only excepted, which might be easily accounted for on our principles.

We suppose that air unites with, and dissolves water very readily, from being always found to contain more or less of it, and also from the difficulty with which it is separated. We likewise conceive them to be united in very different degrees, according to the quantity of water previously in the atmosphere, the temperature and purity of the air, &c. Each are capable of contain-
taining more latent heat than any other kind of body we have examined; therefore, if they really do unite in a chemical manner, there is little doubt, that heat will be given out at the time the union takes place, which seems to be highly probable, from several of the facts already mentioned.

Now, supposing heat to be given out on mixture, it follows, that the air containing this water, must again absorb part of the heat of the contiguous bodies, at the instant they are separated, in order to bring the whole to an equilibrium, by means of which, that part of the air or of the earth where this separation takes place, is cooled in proportion. We can perceive no other cause upon which this singular effect depends, than the temporary increase of the capacity of the air and water for absorbing heat after separation, unless we suppose some other invisible fluid to be separated at the same time, or combined with each, or with both, in some manner different from what took place before.

This no doubt may also be the case, and the separation of a third fluid may even assist the cooling effect of the other two; but of this we shall
shall not venture to offer even a conjecture at present. However, we must allow, that many of the phænomena respecting the temperature of the atmosphere, though not contradictory, are not easily accounted for on the principles we have now mentioned; but must defer giving any further explanation, till we have examined more minutely the laws of electricity and light, and the manner in which the pure part of the air may come to be phlogisticated, as well as several other particulars.

We shall therefore now only add, that as the air seems to have a power of dissolving water, and forming with it a true chemical mixt, so it seems at different times to be loaded with it in very different degrees, independent of the difference of temperature; and that different degrees of heat, or even cold, are produced by this mixture with water, according to the nature of the union, and the proportion of the various component parts of which the atmosphere, for the time, consists.

Evaporation, we know, is assisted by means of electricity, as well as by heat; and the electric matter, water and air, may be supposed to make a different compound, or at least to have different
different properties, when the former is redundant or deficient. When we see evaporation productive of heat at one time, and cold at another, especially if the cold thereby produced, be greatest when the temperature of the air is decreasing, we must suppose the component parts, at different times, either to be differently proportioned, or combined in a different manner, which may serve to account for many of these seeming exceptions, or at least to render our theory not improbable, till more facts are collected, which may either confirm or refute it.

* * * *

The Physical Society of Edinburgh, instituted in the year 1782, by the junction of the Chirurgo-medical, and Physico-chirurgical Societies, having been in a flourishing condition from that time, the members, during the last winter, resolved on building a hall, that they and their successors might enjoy, in future, a comfortable and settled habitation, and that their library might be lodged in a safe and convenient repository. The foundation-stone was accordingly laid on the 24th of June, immediately
atley after the graduation, by Dr Monro, near the Dispensary, in Richmond-street. The building, though neat and large, has been raised with such rapidity, that the hall was made ready for the reception of the members on the 4th of December last. On this day, an elegant and spirited Latin oration was delivered by Dr Thomas Addis Emmet of Dublin, one of their annual presidents, in presence of the Principal and Professors of Medicine of the University, with a crowded and respectable meeting of the physicians and surgeons of the place, in addition to the ordinary and attending members. He pointed out in a very able manner, the utility which had been derived, not only by the members, but by the University itself, from institutions of this nature; and recommended, that the exertions which had been made for some time past, not only in the investigation of medical subjects, but in the cultivation of the Latin language, should be pursued with ardour, by all those who wished to acquire valuable information, and to distinguish themselves at the University. He stated fully to the members, that the prosperity of other institutions of a similar nature, was by no means incompatible
incompatible with the welfare of their own; that the most friendly connection should be preserved, and that the members of the one may frequently be the members of the other, with the greatest propriety and advantage. He called on the members for harmony and unanimity, at a crisis so important to the institution; recommended, that they should never lose sight of their library, implored the protection of the University, and expressed the warmest tribute of thanks and gratitude to all those who had subscribed to the exigencies of the society. As the oration has been presented to the public, at the desire of the society, it is needless to enlarge farther on it.

Subscriptions are received by Dr Monro, Dr Duncan, and Mr Hay, surgeon in Edinburgh; by Dr Emmet, Mr Ewart, Mr Bell, and Mr Skeete, annual presidents of the society, and by their treasurer, Mr Andrew Fyfe, in the College, Edinburgh.

* * * *

We mentioned in our last volume, that the question proposed by the Harveian Society of Edinburgh, as the subject of their prize dissertations
tions for 1783, was an experimental inquiry concerning the nature and properties of the Peruvian bark, and the comparative powers of the red and quill bark?

On this subject many excellent dissertations were transmitted to the secretaries. But the judges were of opinion, that the first in point of merit, as containing the greatest number of original observations, was a dissertation to which was prefixed the following motto:

"Omnes enim trahimur et ducimur ad cognitionis et scientiae cupiditatem."

Upon opening the sealed letter which accompanied this dissertation, it was found to be written by Mr Ralph Irving, from Langholm.

But while this dissertation was crowned with the first prize, the judges unanimously determined, as a testimony of their approbation of its merit, to bestow a second prize on the author of a dissertation to which was prefixed the following motto:

"Admirans mirabile donum
Fatales virgae, longo post tempore visum."

Upon opening the sealed letter which accompanied this dissertation, it was found to be written by Mr Thomas Skeete, from Barbadoes.

Prizes
Prizes were accordingly publicly delivered to these two gentlemen, on the 12th of April 1784, the anniversary of the birth-day of Dr Harvey, in the hall of the public Dispensary, in presence of a numerous and respectable company. Before the prizes were presented to the successful candidates, the Harveian oration for 1784 was delivered by Dr Duncan, in which he gave an account of the life, writings, and character of the late Dr David M'Bride of Dublin.

Dr Webster, who presented the prize medals to Messrs Irving and Skeete, announced, as the subject of the prize dissertation for 1784, an experimental inquiry concerning the nature and properties of ipecacuanha, concerning the comparative power of different kinds of it, and of different parts of the root?

Several dissertations on this subject were transmitted to the secretaries by the day appointed, the 1st of January 1785, which are at present under the consideration of the judges.

The dissertation written by Mr Irving, which gained the first prize for 1783, has lately been published, under the title of "Experiments on the Red and Quill Peruvian Bark, with observations on its history, mode of operation, and uses,"
COMMENTARIES

"uses, and on some other subjects connected
with the phænomena and doctrines of vege-
table astringents." We hear, that the differ-
tation written by Mr Skeete will also soon be
published. And we think we may venture to
assert, that, from a careful perusal of both, the
candid and intelligent reader will not only be
furnished with ample proof of the industry and
ingenuity of the authors, but will also derive
important information in many different parti-
culars.

* * * *

The Medical Society of Edinburgh, which
had some years ago the honour of being con-
firmed by a royal charter, have resolved to be-
flow an annual prize of twenty guineas in va-

tue, with the view of encouraging experimental
inquiries concerning different subjects in medi-
cine and medical philosophy. They have pu-
blished the following advertisement on this sub-
ject.

A Societate Regia Medica Edinensi, comitiis
ad id habitis, questionem ad rem medicam per-
tinentem, et experimentis dijudicandum, quot-
annis proponere solenni lege statutum est; nec
non
non auctorem dissertationis præstantissimæ, ut suus sit meritis atque doctrinæ honor, prima mensis Aprilis die comitiali, duobus annis tribusque mensibus, ex quo tempore quæstio evulgata fuisset, elapsis, aureo numismatico viginti et uno libris valente donare; modo ejus tentamen dignum habeatur, quod tali honore condecoratur.

In annum jam vertentem, quæstionem sequentem, quippe cujus accurata et exquisita cognitio sit cujusque mediæ ac philosophi veritatis atque novitatis avidi, proponendum exigit. movit societas.

Quot sint aeris species, quænam singularum natura, et in medicina vires?

Dissertationes, latine scriptæ, die vel ante diem Januarii primam ad eos mittendæ qui a sectatis sint ad acta edenda apud ædes societatis Edinurgi. Praeter dissertationem, epistola, codem sigillo quo ipfa dissertatio munita, etiam mittenda, quæ nomen auctoris, locique quo degit, contineat; et parti epistolæ exteriori symbolum superaddendum, quod alteri respondeat dissertationi intus superaddito.

Epistola, intacto sigillo, una cum dissertazione, si successu caruerit, quocunque designaverit aut voluerit
COMMENTARIES. 463

voluerit remittenda, vel, si de hoc parum solici-
tus sit, comburenda.

Dissertacionem præmio donatam, sub quavis
forma cunque, jus evulgandi penes societatem
esse semper intelligendum.

The question proposed by the society in Ja-

nuary 1785, is given out in the following
terms:

Quot sint fermentationum species? Quænam
cujusque natura? nec non, quibus corporum
conditionibus inter zymica et antizymica diffe-
rentia pendeat?

The present secretaries for publication are Dr
Duncan and Dr Stuart.

Dissertations on the first of the above que-
fitions, addressed to either of these gentlemen,
must be sent to the hall of the Medical Society
in Edinburgh by the first of January 1786, and
on the second by the first of January 1787.

* * * *

The Medical Society have lately determined,
in pursuance of the plan which was suggested
when their hall was first built, to fit up an ela-
boratory for chemical experiments, and to fur-
nish it with a proper apparatus for the use of
their
their members. They have appointed a committee of their number, under whose superintendence this work will be immediately begun; and they have directed the same committee to purchase different philosophical instruments, particularly an electrical machine, thermometers, barometers, and other instruments for meteorological observations. As the expense thus incurred will be more than can probably be defrayed from the funds of the society for some years to come, it is not impossible, that some of their absent members may be disposed to aid and to forward this undertaking. Benefactions for this purpose may be transmitted to Dr Duncan, treasurer to the society.

* * * *

The Royal Society of Medicine in Paris, in the year 1778, proposed a prize for the solution of the following question:

Determiner quel est le meilleur traitement de la rage?

To the competitors on this subject they have lately adjudged three prizes: the first to Mr Mathieu, surgeon at Conge, in Sarladais; the second to Mr Bouteille, physician at Manosque, in
in Provence; and the third to M. Baudot, physician à la Charité-sur-Loire.

The subject of a second prize, proposed in 1778, was announced in the following terms:

Determiner quels sont les rapports des maladies epidemiques, avec celles qui surviennent en meme temps, et dans le meme lieu, et que l'on appelle intercurrentes, quels sont leur complications, et jusqu'a quel point ces complications influent sur leur traitement?

This prize was adjudged to M. Raymond, physician at Marseilles.

The subject of a third prize, proposed in 1778, was announced in the following terms:

D'indiquer la meilleure methode pour guerir promptement et surement la gale contractee par communication comme il arrive dans les caserne, les ateliers, les hospitaux, et les prisons?

This prize was adjudged to M. Sumeire, physician at Marignone, in Provence.

In 1779, the following prize question was proposed:

Determiner, par un nombre suffisant d'observations et d'experience exactes, si les maladies contagieuses, principalement la petite verole, peuvent se transmettre par l'intermede de l'air?

Vol. IX. G g This
This prize was adjudged to M. Menuret, physician at Montelemart.

In 1780, the following prize question was proposed.

D'indiquer quelles sont les maladies qui regnent le plus communement parmis les troupes pendant la saison de l'automne? quel sont les moyens de le prevenir, et quelle est la methode la plus simple, la plus facile, et la moins dispendieuse de les traiter?

This prize has been divided between M. Bon té, physician at Coutances, and M. Thion de la Chaume, a physician in the army.

In 1781 and 1782, the following prize questions were proposed, the determination concerning which is not yet published in the memoirs of the society:

1. Quelles sont les femmes qui doivent s'abstiner de nourrir elles-memes leurs enfants?

2. Quelles sont les moyens les plus furs de preserver les enfants en nourrice, des accidents aux quelles la dentition les expose, et d'y remedier lorsqu'ils en sont atteints?

3. Determiner quels sont les signes qui annoncent une disposition a la phthise pulmonaire,
The attention of physicians and philosophers at Paris has of late been very much engaged with the subject of animal magnetism, as it has been styled. Dr. Mesmer, a German physician, has, within the course of a few years, amassed a large sum of money by means of it. His mode of practice at length so far attracted notice, that the King of France named a commission, consisting of four of the most eminent physicians in Paris, and five of the most celebrated members of the Academy of Sciences, to inquire into the truth of his alleged cures.

The result of their inquiries is now published by authority, under the title of, Rapport des Commissaires chargés par le Roi de l'examen du magnetisme animal. From this report, it seems to be clearly demonstrated, that animal magnetism is entirely an imposition upon the public; but that the power of imagination has most surprising effects upon those who suppose themselves under its influence, particularly by inducing violent convulsions, or at least that...
the touch, particularly pressure on the hypochondria and pit of the stomach, and imitation, one catching the convulsions of another, are, in conjunction with imagination, the true causes to which the effects alleged to arise from animal magnetism are entirely to be attributed; and although in this manner some cures may be accomplished, yet that convulsions are of themselves a dreadful disorder, too dangerous to be employed in the cure of any disease.

* * * *

A large work, on the structure and physiology of fishes compared with those of man, written by Dr Monro, professor of anatomy in the university of Edinburgh, and illustrated with a number of copperplates, is in the press, and will soon be published.

* * * *

The improved edition of Dr Lewis’s New Dispensatory, which we mentioned in our former volume, the publication of which has been from different accidents retarded, has now been in the press for a considerable time, and will probably soon appear.
Some years ago, a selection of the inaugural dissertations which are printed at Edinburgh, was undertaken at that place, and two volumes were published under the title of Thesaurus Medicus. This work is again resumed, and two other volumes will soon be published, containing dissertations which have appeared between the years 1758 and 1785. The selection for these two volumes has been made by a committee appointed by the Medical Society for that purpose.

Dr Alexander Hamilton is engaged in preparing a new edition of his treatise on midwifery, and the complaints of females, with the treatment of lying-in women, and the management of new-born children. Although this treatise is chiefly intended for the use of female practitioners and private families, yet it contains many remarks which may also be highly instructive to others.

A translation of Baron Haller’s First Lines of Physiology was printed some years ago at Edinburgh. That translation was made from the correct
correct Latin edition printed under the inspection of Dr Cullen. A new edition of this translation will soon appear. It has been carefully compared with the edition lately published at Gottingen by Professor Wirthes, and will also contain a translation of the notes which he added to that work.

Mr Andrew Bell, engraver in Edinburgh, has made considerable progress in his anatomical tables of the blood-vessels and nerves, the brain, viscera, parts of generation, &c. It is therefore probable, that the publication of this important anatomical work is not now far distant.

A new edition of Dr Cullen's Synopsis Nosophologiae Methodicae, is in the press, and will soon be published. This edition, we are informed, besides many improvements, will contain Dr M'Cuide's arrangement and definition of diseases. Dr Cullen has likewise improved and made great additions to his own part of this useful work.
It is expected, that, some time in March next, a second edition of the translation of the Count de Buffon's natural history, by Mr Smellie, one of the members of the Royal and Antiquarian Societies of Edinburgh, will make its appearance. This edition, we understand, is highly improved by the translator; and a new supplementary volume, lately published by the Count de Buffon, is to be added. This volume consists chiefly of interesting facts relative to the history of the earth; and for the accommodation of those who purchased the former edition, it will be sold separately.

A new edition of Dr Withering's Botanical Arrangement of British Vegetables, is, we hear, in the press. Although the former title be preferred, yet this edition will be in many respects an entire new work, and will form three volumes in octavo. And from the well known abilities of the author, there can be little doubt that it will be highly acceptable to every lover of botanical science.
Dr William Cleghorn, a young physician of the most promising abilities, died in Dublin on the 20th of April 1783. This very ingenious young man, who was cut off in the 20th year of his age, obtained the degree of Doctor of Medicine from the University of Edinburgh in 1779; on which occasion, he wrote an inaugural dissertation De Igne; which did him very great credit. He was nephew to Dr George Cleghorn, with whose character the medical world are well acquainted; and that gentleman had resigned in his favour the office of lecturer in anatomy in the Trinity College, Dublin. His friends and the public entertained the highest expectations from his exertions in this capacity. But these hopes were soon blasted by his premature death.

On the 6th of June 1783, died in London Dr William Keir, member of the College of Physicians, and one of the physicians to Sir Thomas’s Hospital. On this occasion also we have again to regret the death of a most ingenious and amiable young man. In the seventh volume of these Commentaries, which was dedicated
dicated to him, and which has been reprinted since his death, we had occasion to express our esteem for his abilities and virtues. Dr Keir was a native of Perth, in Scotland; he studied medicine at Edinburgh, and obtained the degree of Doctor of Medicine from the University of Edinburgh in 1778, on which occasion he wrote a very ingenious inaugural dissertation De Attractione chemica. Soon after his graduation, he went to London, and delivered lectures on chemistry, which were very much admired by the most intelligent of his hearers. He was elected physician to St Thomas’s Hospital in the year 1780, and had a fair prospect of rising to distinguished eminence both in medicine and philosophy. But a fatal fever, which was attributed to uncommon attention to the duties of his office in the hospital, cut short a life no less valuable to the public than to his family.

* * * *

Dr Thomas Lawrence, long a physician of the first eminence in London, died at Canterbury on the 6th of June 1783. Dr Lawrence obtained the degree of Doctor in Medicine from the University of Oxford. He was admitted a fellow
fellow of the Royal College of Physicians in London in 1744. And after long practising in that city with very high reputation, he was elected President of the College, which distinguished office he held for several years. But about a year before his death, he left London, to spend the remainder of life in a more retired situation. He was highly esteemed both for his integrity and erudition; and his dissertation De Hydrope, as well as some other works, have been much and justly admired for the elegant classical style in which they are written.

* * * *

The celebrated Dr Daniel Bernoulli, professor of physic and natural philosophy in the university of Basel in Switzerland, died there on the 17th of March 1782. He was the son of John Bernoulli, a very celebrated mathematician, and he inherited no small share of the genius of his father. He was a member of the Royal Society of London, and indeed of most of the learned societies in Europe.
Peter Joseph Macquer, M. D. justly celebrated for his chemical writings, died at Paris on the 17th of February 1784.

Peter Cuffon, M. D. a learned physician and eminent botanist, died lately at Montpellier. He was the intimate friend of the late celebrated M. de Sauvages, and had the honour of assisting him in his very useful work, the Nosologia Methodica.

The University of Leyden has of late sustained a very heavy loss by the death of two eminent medical professors, Dr John David Hahn, and Dr Walter van Döeveren, who had there distinguished themselves, both as teachers of medicine, and authors of high reputation.

Sir Torbern Bergman, Knight of the order of Waffa, professor of chemistry at Upsal, and member of many different learned societies, died in Sweden on the 9th of July 1784. From his numerous
numerous improvements and valuable publications on different subjects of chemistry, he will always be regarded as one to whom that science is very much indebted.

* * * *

Dr Matthew Dobfon, author of a commentary on fixed air, and several other valuable medical publications, died at Bath on the 25th of July 1784.

* * * *

In the month of August 1784, died at Rouen, John Peter David, an eminent surgeon and anatomist. He succeeded the late Mr le Cat as professor of anatomy at that place, and was both distinguished as a teacher, and as the author of several valuable publications on different medical subjects.

* * * *

During the course of the year 1783 and 1784, the following gentlemen have been admitted members of the Royal Colleges of Physicians and Surgeons of Edinburgh.

Admitted
Admitted into the College of Physicians.

Dr John Ellifon, 1783. May 6.
Dr John Steavenson, Aug. 5.
Dr Jo. Jof. Sue, Sept. 1.
Dr John Marshall, Nov. 4.
Dr James Wood, 1784. Feb. 3.
Dr Robert Grant, May 4.
Dr Andrew Farquharson, Nov. 2.
Dr Thomas Kerr, Dec. 2.

Admitted into the College of Surgeons.

Mr Thomas Hart, 1783. Feb. 3.
Mr James Law, ditto.
Mr James Lata, June 16.
Mr John Bennet, 1784. June 22.
Mr James McDowall, 
Mr George Wood, 
Mr John Lamont, Oct. 13.

* * * * *

The following article, which lately appeared in the St Christopher’s gazette, has been communicated to us by an ingenious correspondent from the West Indies.

Extract
Extract of a Letter from a Gentleman in St Martin's, to his Friend in this Island.

St Martin's, 5th May 1784.

I cannot omit sending you inclosed a recipe which thousands in this part of the world would rejoice to know, and which, I believe, has been but very lately found out at Anguilla; since which, it has also been tried upon people in this island, affected with the leprosy, and many other disorders, which the medical practitioners could make no hand of, and has been productive of great relief.

These trials have been made by a number of gentlemen in Anguilla, and here, who have assured me, that it has made perfect cures, where there appeared no possibility of effecting one. In short, there is scarcely a family now in this island, who have any one about them afflicted with leprous or other cutaneous disorders, but are using the lizard: for my part, I shall begin with them for the gout; and if you think the public will be benefited by the inclosed receipt, I beg you will send it to the printer, for which, I presume, you will afterwards have the prayers of many unhappy objects.
The Efficacy of the Wood-lizard, for curing the Cancer, Venereal Eruptions, Black Scurvy, or any other Scorbutic Complaint.

The lizard is to be taken alive, his legs, tail and head cut off, his guts taken out, his skin taken off, and with the same knife minced very fine, made into a pill or pills, mixed with a little flour, to be given the patient fasting every morning about sun-rise, the patient keeping within doors for two or three hours after.

It is not necessary to observe any particular regimen. The patient may, if he chooses, drink cold water. With some, this remedy operates with a constant spitting, with others, in the way of perspiration, and with some by urine. It has been tried in some of the Leeward Islands, and, to the astonishment of every person, has done wonders.


Candid animadversions on Dr Lee's narrative of a singular gouty case. By William Stevenson, M. D. 8vo. London.


Chemical
COMMENTARIES. 481


A brief history of the late expedition against Fort St Juan, so far as relates to the diseases of the troops, together with some observations on climate, infection and contagion. By Thomas Dancer, M. D. 4to. London.

A report made by order of Government, of a memoir, containing a new, easy, and successful method of treating the child-bed, or puerperal fever, made use of by the late M. Doulcet, Doctor-regent of the Faculty at Paris, and one of the Physicians to the Hotel Dieu, read at a meeting of the Royal Medical Society, held at the Louvre, the 6th of September 1782, translated from the French, by John Whitehead, M. D. Member of the Royal College of Physicians, London, and Physician to the London Dispensary. 8vo. London.

Some account of the late John Fothergill, M. D. Member of the Royal College of Physicians, and Fellow of the Royal Society of London, Fellow of the Royal College of Physicians in Edinburgh, and corresponding member of the Royal Medical Society at Paris, and of the American Philosophical Society at Philadelphia. Vol. IX.
By John Coakley Lettsom, M. D. &c. 8vo. London.

Chirurgical essays on the causes and symptoms of ruptures, their natural consequences, if neglected, &c. By T. Brand, Member of the Corporation of Surgeons of London, and Surgeon Extraordinary to his Majesty’s Hospital at Greenwich. 8vo. London.

Remarks on Mr Brand’s essay on the causes and symptoms of ruptures, with a short, but true history of the invention of Mr Brand’s patent elastic trusses. By T. Sheldrake, junior. 8vo. London.

Observations on the management of the diseases of the army and navy, during the American war, together with some account of the loss of Senegal, and of the army at York in Virginia, in reply to Dr Monro. By John Miller, M. D. 4to. London.

An essay on the symptoms and cure of the virulent gonorrhoea in females. By C. Armstrong, Member of the Corporation of Surgeons, London. 8vo. London.

Collectanea Hibernica medica, No. I. being a collection of, and repository for papers of advice,
vice, discussion and research, in all departments of medicine. 8vo. Dublin.


Reports of the Humane Society, instituted in the year 1774, for the recovery of persons apparently drowned. For the years 1781 and 1782. 8vo. London.

Memoirs of Dr Albert Haller, M. D. Member of the Sovereign Council of Berne, President of the University, and of the Royal Society of Gottingen, Fellow of the Royal Society of London, &c. By Thomas Henry, F. R. S. Member of the Medical Society of London, and of the Literary and Philosophical Society of Manchester. 12mo. London.

An analysis of the section of the symphyse of the osa pubis, as recommended in cases of difficult labour, and deformed pelvis, by Alphonse le Roy, Professor of Midwifery at Paris. By James Rymer, Surgeon. 8vo. London.

An enquiry, by experiments, into the properties and effects of the mineral waters in the county of Essex. By William Marten Trinder,
der, L. L. B. at Oxford, and M. D. at the University of Leyden. 8vo. London.


Practical observations on the human teeth. By R. Wooffendale, Surgeon-dentist. 8vo. Liverpool.

Experiments and observations in electricity. By Thomas Milner, M. D. 8vo. Caddel.

Flora dietetica, or the history of esculent plants, both domestic and foreign, in which they are accurately described, and reduced to their Linnaean generic and specific names, with their English names annexed; the whole so methodized as to form a short introduction to the science of botany. By Charles Bryant of Norwich. 8vo. London.


Observations
Commentsaries. 485


Observations on the late influenza, the febris catarrhalis epidemic of Hippocrates, as it appeared at London in 1775, and 1782. By William Grant, M. D. 8vo. London.

A letter to Dr Leslie, F. R. S. on the influenza, as it appeared at Newcastle upon Tyne. By John Clark, M. D. 8vo. Newcastle.

Practical observations on amputation. By R. Mynors, Surgeon. 8vo. London.

An essay on the use of the red Peruvian bark, in the cure of intermittents. By Edward Rigby, Member of the Corporation of Surgeons, London. 8vo. London.

A treatise on the infantile remittent fever. By William Butter, M. D. Fellow of the Royal College of Physicians, and Member of the Medical Society, both of Edinburgh. 8vo. London.

A serious and friendly address to the public, on the dangerous inconveniences of neglecting common coughs and colds, so frequent in this climate, containing a simple and efficacious method
Method of cure. By a Gentleman of the Faculty, 8vo. London.

Cursory observations on a treatise, intitled, Medical advice to the people of England. By Philip Stern, M. D. Addressed to the consumptive people of this kingdom. By Thomas Hodson. 8vo. London.

Chemical reflections relating to the nature, causes, prevention and cure of some diseases; particularly sea-scurvy, stone, gout, &c. By James Rymer, Surgeon at Ryegate, 12mo. London.

The philosophy of physic, or phlogistic system, in which phlogiston, supplied in an aërial form by the ingesta, and regulated in its agencies and evolutions by atmospheric and tonic reactions, is considered as constituting, actuating and supporting the vital power or stimulating susceptibility. By T. Dewell, Surgeon. 8vo. London.

A system of anatomy from Monro, Winslow, Innes, and the latest authors, arranged as nearly as the nature of the work will admit, in the order of lectures delivered by the Professor of Anatomy in the University of Edinburgh, 2 vols, 8vo. Edinburgh.

Observations

Dissertations on select subjects in chemistry and medicine. By Martin Wall, M.D. Physician at Oxford; Public Reader of Chemistry in the University, and late Fellow of New College. 8vo. London.

An essay on the principles and manners of the medical profession, with some occasional remarks on the use and abuse of medicine. By J. Whitaker Newman, Member of the Corporation of Surgeons of London. 8vo. London.

Aphorisms composed for a text to practical lectures, on the constitution and diseases of children. By Andrew Wilson, M.D. Fellow of the Royal College of Physicians, Edinburgh, and Physician to the General Dispensary for the relief of infant poor. 12mo. London.

Outlines of mineralogy, translated from the original of Sir Torbern Bergman. By William Withering, M.D. Member of the Royal Medical Society at Edinburgh. 8vo. London.
An essay on the most efficacious means of treating ulcerated legs, in which the topical applications in general use are considered, and some new methods of relief proposed, with particular observations on the safety of healing old ulcers. 8vo. London.

A sovereign remedy for the dropsy, published by desire, for public benefit. 4to. London.

A system of vegetables, according to their classes, orders, genera and species, with their characters and differences, translated from the 13th edition of the Systema Vegetabilium of Sir Charles Linnaeus, as published by Dr Murray, and from the Supplementum Plantarum of Professor Linnaeus. By a Botanical Society at Litchfield. 2 vols. 8vo. London.

Hortus Uptoniensis, or a catalogue of stone and green-house plants in Dr Fothergill's garden at Upton, at the time of his decease. 8vo. London.

A description of a glass apparatus for making in a few minutes, and at a very small expense, the best mineral waters of Pyrmont, Spa, Seltzer, Seydlschutz, Aix la Chapelle, &c. By J. H. de Magellan, F.R.S. 8vo. London.
Commentaries

Physical and chemical essays, translated from the Latin of Sir Torbern Bergman, Knight of the order of Waffa, Professor of Chemistry at Upsal, &c. By Edmund Cullen, M.D. Fellow of the Royal College of Physicians at Dublin. Vols. 1st and 2d. 8vo. London.


A short attempt to recommend the study of botanic analogy, in investigating the properties of medicines from the vegetable kingdom. 8vo. London.


Observations and experiments for investigating the chemical history of the tepid springs at Buxton, together with an account of many newly discovered, or little known properties of substances relating to several branches of chemistry and animal and vegetable life. By George Pearson, M.D. 2 vols. 8vo. London.
A catalogue of British medical, culinary and agricultural plants, cultivated in the London botanical garden. By William Curtis, author of the Flora Londinensis, to which are prefixed proposals for opening it by subscription. 12mo. London.

An essay on the management and nursing of children, in the early period of infancy, and on the treatment and rule of conduct requisite for the mother, during pregnancy and lying-in. By William Mofs, Surgeon. 8vo. London.

Cursory remarks on the nature and cause of the marine scurvy, shewing that the distemper may not only be prevented, but probably cured on board ships, at any distance from land. 4to. London.

An essay on the bite of a mad dog; in which the claim to infallibility of the principal preservative remedies against hydrophobia is examined. 8vo. London.

An approved method of opening the temporal artery, and also a new proposal for extracting the cataract, with cases and observations tending to illustrate the good effects of arteriotomy in various diseases. By William Butter, M.D. 8vo. London.
A medical survey of Liverpool, addressed to the inhabitants at large. By William Mols, Surgeon at Liverpool. 8vo. London.

The case of the Reverend Dr Harwood, an obstinate palsy of above two years duration, greatly relieved by electricity. By Edward Harwood, D.D. 8vo. London.

Lectures on the gravid uterus and midwifery, as taught and practised by the late Dr Hunter. By one who studied under him. 8vo. London.

Some hints relative to the recovery of persons drowned, and apparently dead, with a view to render that practice more generally successful. By John Fowler, Surgeon at Ayton, Berwickshire. 8vo. London.

A system of surgery. By Benjamin Bell, Member of the Royal College of Surgeons, one of the Surgeons to the Royal Infirmary, and Fellow of the Royal Society of Edinburgh. Vols. 2d. and 3d. 8vo. Edinburgh.

Outlines of the theory and practice of midwifery. By Alexander Hamilton, M.D. and F.R.S. Edin. Professor of Midwifery in the University, and Member of the Royal College of Surgeons, Edinburgh. 8vo. Edinburgh.
Medical cases, selected from the records of the Public Dispensary of Edinburgh, with remarks and observations. By Andrew Duncan, M. D. F. R. & A. S. Ed. Physician to his Royal Highness the Prince of Wales, for Scotland, &c. the third edition. 8vo. Edinburgh.

First lines of the practice of physic. By William Cullen, M. D. Professor of the Practice of Physic in the University of Edinburgh, First Physician to his Majesty, for Scotland; Fellow of the Royal College of Physicians of Edinburgh, and of the Royal Societies of London, of Edinburgh, &c. 4 vols. 8vo. Edinburgh.

Elementary lectures on chemistry and natural history, containing a methodical abridgment of all the chemical knowledge acquired to the present time. Translated from the French of M. Fourcroy, Doctor Regent of the Faculty of Medicine at Paris, and of the Royal Society of Medicine, by Thomas Elliot, with many additions, notes and illustrations by the translator. 2 vols. 8vo. Edinburgh.

Experiments on the red and quill Peruvian bark, with observations on its history, mode of operation and uses, and on some other subjects connected with the phenomena and doctrines of
of vegetable astringents, being a dissertation which gained the first prize given by the Harveian Society of Edinburgh, for 1783. By Ralph Irving. 8vo. Edinburgh.

An inquiry into the nature and causes of fever, with a review of the several opinions concerning its proximate cause, as advanced by different authors, and particularly as delivered from the practical chair in the University of Edinburgh, including some observations on the existence of putrefaction in the living body, with the proper method of cure to be pursued in fever. By Caleb Dickson, M.D. 8vo. Edinburgh.


A treatise on the theory and management of ulcers, with a dissertation on white swellings of the joints. By Benjamin Bell, Member of the Royal College of Surgeons of Edinburgh, &c. the third edition, considerably improved and enlarged. 8vo. Edinburgh.
A treatise on the theory and practice of midwifery. By William Smellie, M. D. To which is now added his set of anatomical tables, exhibiting the various cases that occur in practice, with an additional plate of instruments, by the late Dr Thomas Young, a new edition, 3 vols. 12mo. Edinburgh.


Lettre de l'auteur du monde primitif à Messieurs des souscripteurs sur le magnetisme animal. 4to. Paris.

Eloge de Jean Palfyn, Chirurgien et Professeur en Chirurgie, de la ville de Gand. 4to. Ghent.


Lettre à l'Academie de Dijon, avec reponse à ce qui a paru douteux dans la memoire sur l'inoculation


Rapport des commissaires de la Société Royale de Medecine, nommés par le Roi pour faire l'examen du magnetisme animal. 4to. Paris.

Detail des curés operées à Buzancy près Soissons, par le magnetisme animal. 12mo. Soissons.


Flore de Bourgoyn, ou catalogue des plantes naturelles à cette Province, et des celles qu'on y cultive
cultive le plus communément, avec l'indication du sol ou elles croissent, du temps de leur fleuraison, et de couleur de leurs fleurs. 2 vols. 8vo. Dijon.


Memoire concernant une espèce de colique observée sur les vaisseaux. Par M. Gardane, Docteur regent de la Faculté de Medecine, &c. 8vo. Paris.


Lettre de M. le Comte Morozzo à M. Macquer, sur la decomposition du gas mephitique et du gas nitreux. 4to. Turin.


L'Inoculazione de Vajuolo, componimento lirico, &c. 4to. Turin.

Dissertazione:
COMMENTS.

Dissertazione chemica intorno all’ alkali flo-gisticato ed all’ azzuro di Berlino. Par Marf. Landriani. 4to. Milan.


Lettera di N. N. Piacentino al Sig. N. N. Modonefo. 12mo. Piacenza.

Constituzione epidemica de Firenze dell inverno 1780, 1781, &c. 12mo. Florence.

Metodo per curare sicuramenti l’idropisia. Par J. B. Moreali. 8vo. Venice.


Hebammenunterrricht in Gefprachen, &c. i.e. Obstetric institutes, by Josef. Chut. Stankens, Professor of Physie at Jena. 8vo. Jena.

Vol. IX. 1 i  Chirurgische
Chirurgische wahrnehmungen, i.e. Chirurgical observations. By Adolphus Frederick Vogel, M. D. 8vo. Lubeck.

Beschreibung der epidemicien welche im fruhjahrn des 1782 jahres in mehren gegenenden von Europa geherrschet und unter dem namen der Russichen krankheit bekannt geworden, i.e. A description of the epidemic which, in the spring of the year 1782, prevailed in many countries of Europe, and was known under the name of the Russian disease. 8vo. Leipfic.


Fundamenta chemiae theoretico-practicæ posita, a D. J. W. Baumer. 8vo. Giesæ.


Jolephi
COMMENTARIES. 499

Josephi Jacobi Plenk, Chirurgiæ Doctoris, nec non Chirurgiæ, Anatomæ, atque Artis Obstetriciæ Professoris, in Regia Universitatis Burdeni, Pharmacologia chirurgica, sive doctrina de medicamentis quæ ad curationem morborum externorum adhibendi solent. 8vo. Vienna.


Dissertatio gradualis, sibiens chemiæ progressus a medio sæc. vii. ad medium sæc. xvii. cujus partem priorem Praefide Mag. Torb. Bergman, Chemiæ Prof. &c. publice ventilandam exhibit Petrus Afselius Arvidson, Westrogothus. 4to. Ufialiæ.

I i 2 Joannis
Joannis Nathanael Lieberkuhn, anatomi
dum viveret summi et medici experientissimi,
dissertationes quatuor, omnia nunc primum in
unum collecta et edita, cura et studio Joannis
Sheldon, Anatomos Praelectoris, et Societatis
Chirurgorum Londinensis Sodalis. 4to. Lon-
dini.

Tractatus de polycholia. 8vo. Hallæ.
De rara singularum rerum compage in mu-
lieris ventre detecta, a Hieronymo Guaraldi,

Chr. Vater de praesagiis vitae et mortis iterum
edidit et auxit S. et D. Tissot. 8vo. Pavia.
M. J. J. Mederer, Med. et Chir. in Caesareo
Regia Universitate Friburgenfi Prof. Ord. &c.
Syntagma de rabie canina. 12mo. Turin.

Dissertatio medica de vesicantium usu in va-
riis morbis tractandis. Autore Henrico Donly,
Lugd. Bat.

Dissertatio medica de lactis secrezione in puer-
Hon. 4to. Lugd. Bat.

Dissertationes
Dissertationes medicæ inaugurales, quas ex auctóritate Reverendi admodum Viri Gulielmi Robertson, S. S. T. P. Academiæ Edinburgæ Præfeci, nec non amplissimi Senatus academici consensu, et nobilissimæ Facultatis medicæ decreto, pro gradu Doctoratus summiisque in medicina honoribus et privilegiis rite et legitime consequendis, eruditorum examini subjecerunt, ad diem xxiv Junii 1783.

Robertus Harding, Hibernus, de Amenorrhoea.

Ricardus Kiernan, Hibernus, de Scorbuto.

Jacobus Fred. Martley, Hibernus, de Menses.

Gulielmus Monro, Scotus, de Tetano.

Joannes Murphy, Hibernus, de Ictero.

Jacobus Naasnyth, Scotus, de Afcite.

Hugo Owen, Cambro-Britannus, de Contagione.

Christopherus Stanger, Anglus, de Sanitate.

Joannes Stark, Fifanus, de Malo hypochondriaco.

Thomas Waller, Britannus, de Typho.

Abrahamus Wilkinson, Britannus, de Electricitate.

I i 3 Dissertations
Dissertationes medicæ, &c. ad diem xii Septembris 1733.
Thomas Bell, Hibernus, de Dieta.
Franciscus Buchanan, Scotus, de Febribus intermittentibus medendo.
Robertus Cleghorn, Scotus, de Somno.
Andreas Coventry, Scotus, de Scarlatina Cy-nanchica.
Stephanus Dickson, Hibernus, de Somno.
Jonathan Dudley, Hibernus, de Vifu.
P. Gulielmus Fergus, Hibernus, de Variolis.
Robertus Groat, Britannus, de Hysteria.
Carolus Hill, Hibernus, de Hydrothorace.
Dionysius Keogh, Hibernus, de Ictero.
Benjaminus Kissam, Americanus, de Utero gravidō.
Jacobus Paterson, Britannus, de Evapora-tionē.
Arthurus Grant Robertson, Antiguanus, de Hydroscope.
Edmundus Somers, Hibernus, de Sonis et Auditu.

Dissertationes medicæ, ad diem xxiv Junii 1784.
Joannes Barclay, Scotus, de Inflammatione.
Raius
Raius Beckwith, Anglus, de Morbo Ploodico.
Jonathan Clerke, Hibernus, de Cancro.
Edvardus Long Fox, Britannus, de Voce humana.
Edvardus Harrifon, Anglus, de Opio.
Ricardus Kentish, Anglus, de Phthisi pulmonali idiopathica.
Joannes Lawfon, Britannus, de Corde.
Joannes Murdoch Logan, cvis Bostoniensis Americanus, de Morbo venereo.
Græmius Mercer, Scotus, de Pathematibus Animi.
Joannes Potter, Anglus, de Sedentariae Vitæ Malis.
Michael Ryan, Hibernus, de Raphania.
Thomas Ryan, Hibernus, de Asthmate spasmodico.
Thomas Wallis, Hibernus, de Vermibus Intestinalorum.
Henricus Brouker Wilson, de Insula Sancti Christophori, de Sudore.
Joannes Unthank, Hibernus, de Leucophlegmatia.

Dissertationes medicæ, &c. ad diem xiii Septembris 1784.

I i 4

Andreas
Andreas Berry, Scotus, de Phrenitide vera.
Jacobus Collier, Britanus, de Febribus intermittentibus.
Jacobus Curry, Hibernus, de Humorum in Morbis contagiosis Assimulatione.
Jacobus Donovan, Hibernus, de Hæmorrhagia Pulmonum.
Thomas Addis Emmett, Hibernus, de Aere fixo, sive Acido aereo.
Samuel Ferris, Anglo-Britannus, de Sanguinis per Corpus vivum circulantis Putredine.
Thomas Fulham, Hibernus, de Febre Puerperarum.
Jacobus Gerard, Anglus, de Differentiis inter Foetum et Adultum.
Gulielmus Henderson, Britannus, de Vita marina.
Ricardus Lubbock, Anglo-Britannus, de Principio orbili.
Jacobus McDonnel, Hibernus, de Submergis.
Alexander Pelissier, Hibernus, de Pulso Arteriarum.
Thomas Spens, Edinburgenfis, de Amenorrhoea.
Laurentius Walsh, Hibernus, de Cate et Tactu.

Dissertationes
COMMENTARIES

Dissertationes medicæ inaugurales, quas auctorialitate dignissimi vice Cancellarii, Gulielmi Leechman, S. S. T. P. P. et Collegii Glasguensis Præfecti, nec non amplissimi Senatus academici consensu, et nobilissimæ Facultatis medicæ decreto, pro gradu Doctoratus summisque in medicina honoribus et privilegiis rite et legítimó consequendis, in comitiis Universitatis Glasguensis eruditorum examini subjecrunt, ad diem xx Septembris 1784.

Jacobus Templeton Robinson, Hibernus, de Electricitate medica.

Gulielmus Major Dixon, civis Virginianus, de Hepatite.

Joannes McMorran, Hibernus, de Typho.

Thomas Cochrane, Britannus, de Tetano.

INDEX.
INDEX.

A.

ACETUM lithargyrites, observations on, 211
Adair, Dr James, his observations on particular articles of the materia medica, 206
Air, fixed, exhibited in magnesia, success of, 216
——— observations on, ib.
Alum, observations on, 209
Amputation flap used with success, an instance of, 326
Angelica tree, its anthelmintic virtue, 365
Angina polypos, a case of, 254
Angina pectoris, hereditary, a case of, 307
Animal magnetism, observations on, 467
Anodynes, observations on, 211
Armstrong, Dr T. his account of three children in one family, seized with singular convulsion fits, 317
Arsenicum album, observations on, 220
——— external exhibition of, 222
——— internal exhibition of, ib.
Ascites, purulent, cured by tamping, 360
Astringents, observations on, 209
Atchison, Mr Robert, his observations on the dysentery on the coast of Guinea, 268

Balfour,
## Index

### B.

<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balfour, Dr F. on the influence of the moon in fevers</td>
<td>147</td>
</tr>
<tr>
<td>Bañignot, M. account of the disease named crinons</td>
<td>64</td>
</tr>
<tr>
<td>Bath vapour removing dropsy, an instance of</td>
<td>305</td>
</tr>
<tr>
<td>Bucquet, M. observations on mephitic air</td>
<td>70</td>
</tr>
<tr>
<td>——— observations on opium</td>
<td>84</td>
</tr>
<tr>
<td>Bell, Mr Andrew, anatomical tables</td>
<td>470</td>
</tr>
<tr>
<td>Bengal, fevers of, affected by the full and change of the moon</td>
<td>148</td>
</tr>
<tr>
<td>Bergman, Sir Torbern, death of</td>
<td>475</td>
</tr>
<tr>
<td>Bernoulli, Dr Daniel, death of</td>
<td>474</td>
</tr>
<tr>
<td>Bisset, Dr Charles, his observations on lymphatic encysted tumours</td>
<td>244</td>
</tr>
<tr>
<td>Blister serviceable in iliac passion, an instance of</td>
<td>266</td>
</tr>
<tr>
<td>Bowen, Mr James, surgeon, his account of a singular tumour in the groin</td>
<td>233</td>
</tr>
<tr>
<td>Broughton, Dr Arthur, history of cases of dropsy</td>
<td>368</td>
</tr>
<tr>
<td>Buffon, Count de, natural history</td>
<td>471</td>
</tr>
<tr>
<td>Buxton waters, observations on</td>
<td>124</td>
</tr>
</tbody>
</table>

### C.

<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calderwood, Mr Robert, surgeon, his account of the larva of an insect discharged by the anus</td>
<td>223</td>
</tr>
<tr>
<td>Campbell, Dr A. his account of the success of mercury in the cure of hydrocephalus</td>
<td>240</td>
</tr>
<tr>
<td>Campbell, Mr Ivie, his account of a sewing needle cut out of a woman’s mamma</td>
<td>275</td>
</tr>
<tr>
<td>Cancer, effects of arsenic in</td>
<td>220</td>
</tr>
<tr>
<td>Canella alba, observations on</td>
<td>208</td>
</tr>
<tr>
<td>Cataracts removed by electricity, an instance of</td>
<td>303</td>
</tr>
<tr>
<td>Cathartics</td>
<td></td>
</tr>
</tbody>
</table>
INDEX.

Cathartics combined with diuretics, powerful in
dropsy, 286
Chavasse, Mr William, account of a case of tetanus
cured by opium, 374
Cleghorn, Dr William, death of, 472
Collingwood, Mr Thomas, surgeon, his account of a
discharge of chyle at an opening made in a tumour
at the under part of the belly and back, 344
Convulsion fits, curious instances of, in one family, 317
Crinons, account of, 64
Cullen, Dr William, first lines of the practice of physic, 19

synopsis nofologiæ, 470
Curtin, Dr Samuel, his observations on the yellow fe-
ver of the West Indies, 236
Cusion, Dr Peter, death of, 475
Cutaneous eruptions cured by the wood-lizard, 479

D.

David, Peter John, death of, 476
Derby, Mr, his account of a dropsy cured by the va-
pour bath, 305
Diabetes cured by means of Dover’s powders, cases
of, 349
Diuretics combined with cathartics, powerful reme-
dies in dropsy, 286
Dixon, Dr Joshua, his account of an angina polyposa, 254
Dobson, Dr Matthew, death of, 476
Dougall, Mr William, his account of the evacuation
of a large portion of intestine in the iliac passion, 278

Dover’s
<table>
<thead>
<tr>
<th>Index</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dover's powder used with success in diabetes, an instance of</td>
<td>349</td>
</tr>
<tr>
<td>Droply, cases of</td>
<td>368</td>
</tr>
<tr>
<td>—— cured by combining cathartics with diuretics, an instance of</td>
<td>286</td>
</tr>
<tr>
<td>—— removed by the vapour bath, an instance of</td>
<td>305</td>
</tr>
<tr>
<td>Dry gangrene, observations on</td>
<td>78</td>
</tr>
<tr>
<td>Dysentery epidemic, cure of</td>
<td>212</td>
</tr>
<tr>
<td>—— of the coast of Guinea, observations on</td>
<td>268</td>
</tr>
<tr>
<td>Electricity removing catarrhs, an instance of</td>
<td>323</td>
</tr>
<tr>
<td>Epidemical catarrh, observations on</td>
<td>394</td>
</tr>
<tr>
<td>Ergot, observations on the disease attributed to it</td>
<td>78</td>
</tr>
<tr>
<td>Extract. cicutae, observations on</td>
<td>213</td>
</tr>
<tr>
<td>Fevers, influence of the moon in</td>
<td>147</td>
</tr>
<tr>
<td>Fever, yellow, observations on</td>
<td>236</td>
</tr>
<tr>
<td>Fitzpatrick, Dr J. his account of the extraordinary effects of cold water after delivery</td>
<td>227</td>
</tr>
<tr>
<td>Flap used with success in amputation, an instance of</td>
<td>326</td>
</tr>
<tr>
<td>Forbes, Mr Daniel, his account of an iliac passion relieved by a blister</td>
<td>266</td>
</tr>
<tr>
<td>Fothergill, Dr John, observations on the influenza</td>
<td>394</td>
</tr>
<tr>
<td>Fynney, Mr, uncommon case in midwifery</td>
<td>380</td>
</tr>
<tr>
<td>Gerard, Dr James, his account of a speedy recovery after the operation of trepan</td>
<td>272</td>
</tr>
</tbody>
</table>

Gourlay,
INDEX

Gourlay, Dr William, his account of an encysted farcocele, where one of the testes was entirely obliterated, 336
Grieve, Dr John, his account of an inveterate dropfy, cured by the combination of cathartics, with diuretics, 286
Grieve, Mr William, his account of the angeline bark, 365
Guaiac. volatile tincture of, successfully employed in cases of paralysis rheumatica, 388

H.
Hahn, Dr John, death of, 475
Highton, Mr J. history of two cases of fractured olecranon, 382
Haller, Dr, first lines of physiology, 469
Hamilton, Dr Alexander, treatise on midwifery, ib.
Hamilton, Dr Robert, his account of an hereditary angina pectoris, 307
Hamilton, Dr Robert, observations on the treatment of inflammatory diseases by opium and mercury, 191
Harveian society, their prize dissertation, 458
Hydrocephalus cured by mercury, an instance of, 240
Hymen, imperforate, cured by incision, an instance of, 330

I.
Iliac passion relieved by blistering, an instance of, 266
Inflammatory diseases successfully treated by opium and mercury, 191
Influenza, observations on, 394
Infect,
INDEX

Infæct, the larva of, discharged by the anus, a singular case of, 223
Intestine, a large portion evacuated in the iliac passion, 278
Ipecacuanha, observations on, 215
Irving, Mr Ralph, prize from the Harveian society, 459
James's, Dr, his fever powder, a substitute for, 216
Johnstone, Dr James, case of paralysis rheumatica, cured by volatile tincture of guaiac. 388
Jones, Mr Thomas, his account of a case where the flap was used with success in amputation, 326

K.
Keir, Dr William, death of, 472
Kidney, affection of, occasioning an uncommon enlargement of the abdomen, an account of, 282
Kinnaird, Mr William, experiments on cold, 425
Knox, Dr William, his account of cataracts removed by electricity, 303

L.
Lapis calaminaris, observations on, 210
Labrune, M. de, account of diseases from the putrefaction of animals, 57
Lawrence, Dr Thomas, death of, 473
Lead, large piece of, swallowed by a boy, 421
Lewis, Dr, his new dispensary, 468
Lizard, its efficacy in the cure of cancer, 479

M'Cormick,
INDEX.

M.

M'Cormick, Dr Samuel, his account of diabetes successfully cured by Dover's powder, 349
M'Lauchlan, Dr Alexander, history of purulent aficates, 360
Macquer, Dr Joseph, death of, 475
Martineau, Mr Philip, his account of an uncommon enlargement of the abdomen, from an affection of the kidney, 282
Materia medica, observations on, 206
Medical society of Edinburgh, prize question proposed by, 461
Medical society of Paris, prizes given by, 464
Mephitic air, means of remedying its effects, 70
Mercury, observations on, in inflammatory diseases, 191
— — and opium combined with emetic tartar and camphor, a powerful diaphoretic in inflammatory diseases, 201
— — — method of exhibiting in inflammatory diseases, 199
— — preparation of, chiefly to be depended upon in inflammatory diseases, 203
Meßmer, his animal magnetism, 467
Midwifery, uncommon case in, 380
Monro, Dr Alexander, observations on the structure and functions of the nervous system, 1
— — — — physiology of fishes, 468
Monro, Dr Donald, account of the influenza, 400
Moon, influence of, in fevers, 147

Vol. IX. K k Nauseativa,
INDEX.

N. Page.

Nauseativa, observations on, 214
Needle cut out of a woman’s mamma, an instance of, 275
Nervous system, observations on its structure and functions, 1
Niven, Mr David, surgeon, his account of a case of imperforated hymen, cured by incision, 330
Olecranon, fractured, cases of, 382
Opium and mercury, combined with emetic tartar and camphor, a powerful diaphoretic in inflammatory diseases, 201
--- method of exhibiting in inflammatory diseases, 199
--- combined with emetic tartar, effect of, 212
--- observations on, 84
--- observations on, in inflammatory diseases, 191
--- successfully employed in the cure of tetanus, 374
--- unsafe without addition, 211

P.

Paralysis rheumatica, cured by volatile tincture of guaiac, 388
Parr, Dr B. account of the influenza, 404
Pearson, Dr George, observations on Buxton waters, 124
Peruvian bark, its effects on an obstinate ulcerated leg, 354
Physical society, account of their hall, 456
Physicians, college of, at Edinburgh, new members admitted, 477
Piper cayennsis, observations on, 208
Powder fever, Dr James’s substitute for, 416
Practice
| Practice of physic, first lines of,                                | 19 |
| Practice of physic, first lines of,                                | 19 |
| Putrefaction of animals, its influence in inducing diseases,       | 57 |
| R.  
Rait, Mr William, account of the effects of the Peruvian bark in an ulcerated leg, | 354 |
| Rye, spurred, observations on the disease attributed to it,        | 78 |
| S.  
Salliant, M. observations on the ergot,                          | ib |
| St Martin's, letter from, on the use of the woodlizard,            | 478 |
| Sarcocle, encysted, a curious instance of,                        | 336 |
| Schwedt, Dr F. observations on venereal complaints,               | 90 |
| Scott, Dr William, account of the influenza,                      | 415 |
| Sinapi, observations on,                                           | 207 |
| Skeete, Dr Thomas, prize from the Harveian society,               | 459 |
| Stimulants, observations on,                                       | 207 |
| Surgeons, college of, at Edinburgh, new members admitted,         | 477 |
| T.  
Tartar emetic, combined with opium, effects of,                 | 212 |
| Tepid springs of Buxton, experiments on,                          | 124 |
| Testicle left entirely obliterated, an instance of,               | 336 |
| Thesaurus medicus,                                                | 469 |
| Trepan,                                                          |    |
INDEX

Trepan, speedy recovery after the operation, an instance of, 262
Tumour in the groin, a singular instance of, 233
Tumours, lymphatic encysted, observations on, 244

U.
Ulcerated leg, cured by the Peruvian bark, 354

V.
Van Doeveren, Dr Walter, death of, 475
Venereal complaints, observations on, 70
Vermifuga, observations on, 213
Vitriolum caeruleum, observations on, 217

W.
Water, cold, effects of, after delivery, account of, 227
Wilfon, Mr Patrick, experiments on cold, 424
Withering, Dr William, botanical arrangement, 471
Wood-lizard, its use in the cure of cutaneous eruptions, 479
Worms, remedy for, 214