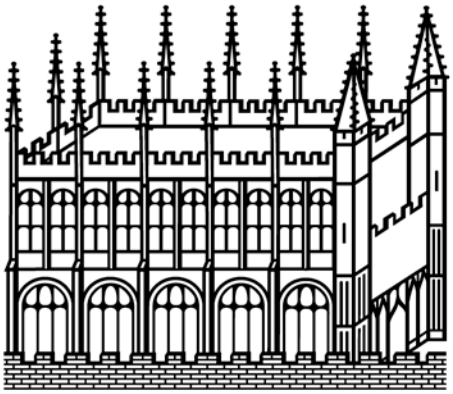


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MEDICAL COMMENTARIES

FOR THE YEAR M.DCC.XCI.

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,
PRESIDENT OF THE ROYAL COLLEGE OF PHYSICIANS, EDINBURGH,
MEMBER OF THE ROYAL SOCIETIES OF MEDICINE
OF PARIS, COPENHAGEN, EDINBURGH, &c.
AND PROFESSOR OF THE INSTITUTIONS OF MEDICINE
IN THE UNIVERSITY OF EDINBURGH.

Neglecta reducit, ſparſa colligit, utilia ſelegit, neceſſaria oſtendit, ſic utile.
Baglivius.

DECADE SECOND.

VOL. VI.

EDINBURGH:
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M.DCC.XCII.


BIBLIOTHECA · BODLEIANA

TO

DR SAMUEL FOART SIMMONS,

PHYSICIAN IN LONDON,

As a public Teſtimony

Of ſincere Gratitude

For many diſintereſted Acts of Friendſhip,

And of unfeigned Eſteem

For many meritorious exertions of Genius,

THIS VOLUME OF

MEDICAL COMMENTARIES

Is gratefully inſcribed,

By his affectionate Friend,

ANDREW DUNCAN.

——— *Ille potens ſui*
Lætuſque deget, cui licet in diem
Dixiſſe vixi.

HORAT.

PREFACE.

THE diſcerning Reader, in peruſing the analyſis of books which the preſent volume contains, will probably be able to diſcover, in particular articles, a ſtyle ſomewhat different from what he has been accuſtomed to meet with in former volumes of this work. In compiling theſe, I was indeed often indebted to ingenious and learned friends, not only for original obſervations, but alſo for an account of new books; but, in the preſent volume, I have been aided by a younger aſſiſtant, and one with whom I am ſtill more nearly connected, my own ſon. Notwithſtanding his youth, and want of experience in literary compoſition, I yet truſt, that he has not failed in retaining

the ſenſe of the Authors whoſe writings he has analyzed: And, if the language which he employs ſhould ſometimes appear deficient in accuracy or perſpicuity, the indulgent Reader will, I hope, permit me to offer for him, the apology which the illuſtrious Haller made for his ſon, "*Condonandum aliquid juveni oc-*" "*todecim annorum.*"

AMONG the original obſervations contained in the preſent volume, there are ſome which may perhaps appear extraordinary; and I will not pretend to affirm, that they may not, in ſome particulars, be founded on miſtaken obſervation. No one, who undertakes the office of a Collector, can be ſuppoſed to vouch for the truth of what is merely communicated to him by others. The credit due to ſuch communications, muſt, in every inſtance, depend on the veracity and diſcernment of the obſerver. But e-

very

very one, extenſively engaged in the practice of the healing art, muſt have frequently met with occurrences, ſo unexpected and ſingular, that he will not raſhly queſtion the authority of others, without ſome good reaſon.

COMMUNICATIONS intended for this Work, which cannot be directly tranſmitted to Edinburgh, may, as was mentioned in the laſt volume, be addreſſed to the care of Meſſrs Robinſons, bookſellers in London.

EDINBURGH,
Dec. 1. 1791.

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MEDI-

MEDICAL COMMENTARIES,

FOR THE YEAR 1791.

VOL. VI. DECADE II.

SECT. I.

Account of New Books.

I.

De Veneni Animalium rabidorum Natura, ejuſque Medela, Diſſertatio. Auctore Frederico Anſelmo Brevel. *M. D.* 4to, Lipſiæ.

THE ingenious author of the treatiſe before us, ſets out with obſerving, that it may ſeem ſuperfluous in him, to add any thing on a ſubject already treated of by more than three hundred writers. But he remarks, that very few of theſe have either attempted to explain the nature of this poiſon, or to ex-

plore a rational method of cure. And he adds, that ſince the ſymptoms induced evidently ariſe from a peculiar poiſon, either introduced into a body in a ſound condition, from one in a ſtate of rabies, or generated from ſome peculiar acrimony in the animal body itſelf, the cauſe of rabies can never be properly underſtood, till the nature of this poiſon be explained. With the poiſon, however, producing Rabies Canina, our author obſerves, that no experiments have been made, with which he is acquainted; nor has he himſelf been able, on this ſubject, to overcome the difficulties which preſented themſelves to others. But he thinks, that from a compariſon of this poiſon with thoſe on which numerous experiments have been lately made by the celebrated Fontana, ſome knowledge of its nature may be derived.

From a compariſon of the effects of the poiſon of rabid animals, with thoſe which Fontana has ſhown to ariſe from the poiſon of the Viper, of the Lauroceraſus, and of the Ticunas, as it is called, he concludes, that in their nature they are very analogous. And he even thinks, that there would be no great error

error in viewing them as differing only in the violence and celerity of their effects. He conſiders thoſe parts of the poiſon in which the ſeeds of deſtruction lurk, as being of a cauſtic nature; and therefore, he thinks that the attention of the medical practitioner ſhould be principally directed, to blunt this cauſticity, and by this means mitigate its effects, or render it altogether innocent to the body. An attempt to eſtabliſh this doctrine, is the object of the treatiſe before us.

In the firſt part, when treating of the nature of the poiſon of rabid animals, he begins by conſidering what cauſticity is. He conſiders phlogiſton, and air deprived of phlogiſton, or pure air, as being principles which, both in chemical operations and in the human body, have very great influence. Though many controverſies have of late taken place with reſpect to their nature, yet he imagines there can be no doubt, that a very ſtrong affinity takes place between them, in conſequence of which, wherever they meet, they mutually attract each other, at length forming new bodies by their union. This mutual affinity is, he thinks, much increaſed, when pure air has before

been united to calcareous bodies. Hence, bodies ſaturated with pure air, may be ſaid to poſſeſs cauſticity, or, in other words, the faculty of attracting phlogiſton with great violence. Theſe bodies, therefore, may, he imagines, be termed cauſtic, which abound in pure air, and at the ſame time are almoſt, if not altogether, deprived of phlogiſton.

To transfer this idea of cauſticity to the human body, it is, he thinks, manifeſt, that whatever is capable of attracting phlogiſton, when applied either to its ſolids or fluids, muſt deſtroy them in a greater or leſs degree, in proportion to the attachment which that phlogiſton has with their other conſtituent parts.

When the nature of a cauſtic is ſuch, that it cannot be diſſolved by the fluids, and abſorbed ſo as to be diffuſed through the whole animal machine, its effects are neceſſarily confined to the part to which it is applied. There, inflammation is excited, and pus afterwards generated, by which the cauſtic is involved, and any farther miſchief from it prevented. But the caſe is otherwiſe, when a cauſtic body is diſſolved in the fluids. For then, its influence is extended over the whole body, unleſs,

by

by the acceſs of ſome particular humour, which in certain caſes happens, its nature be ſomewhat changed. In this manner, it may, even for a long time, be preſent in the body, without producing any deliterious effect; but, in this caſe, it ſtill lurks in the fluids, and only waits for a ſolution of this union, to exert more pernicious effects with greater violence.

This doctrine, he thinks, agrees admirably with the effects of the poiſon of rabid animals, which, it is certain, will often long remain latent in the body of a perſon who has been bit; but, when evolved by anger, terror, or any other cauſe, they give riſe to a moſt dreadful diſeaſe. But, in farther confirmation of this doctrine, he next proceeds to ſhew, that the poiſon of a rabid animal is really of a cauſtic nature. It is, he obſerves, well known, that rabies may either ariſe ſpontaneouſly, or as a ſymptom of other diſeaſes; or, finally, as communicated by the bite of a rabid animal.

The firſt of theſe three ſpecies of rabies, is, he allows, much more rare with the human ſpecies, than with dogs, foxes, wolves, or cats. At the ſame time, examples of its occurrence, even with them, are not wanting.

Both in men and in other animals, ſpontaneous rabies has, he thinks, chiefly appeared from intenſe degrees of heat and cold, and particularly from ſudden ſucceſſions of theſe. Hence, he imagines, we may infer, that it depends upon a greater cauſticity of the humours of the animal body. For, in cold weather, the atmoſpheric air is more pure; and tranſpiration being impeded or ſuppreſſed, this pure air, uniting with thoſe ſerous fluids which ought to have been expelled by inſenſible perſpiration, corrupts them, and imparts a cauſticity to them. How far, however, ſuch a corruption of the humours can ariſe from the influence of cold, will, we apprehend, with many be a matter of doubt. But, were the whole of our author's reaſoning on this ſubject well founded, it would, we think, neceſſarily follow, that ſpontaneous rabies ſhould be a much more frequent diſeaſe than is really the caſe.

He proceeds, however, to ſhew, that a ſimilar effect will ariſe alſo from long continued ſummer heat. For, by exceſſive heat, the atmoſpheric air is, he believes, ſo changed, as, even of itſelf, to operate as a cauſtic ſtimulus

to the human body. Nature, indeed, may, for ſome time, counteract this, by copious ſweating. But the ſerous fluids being exhauſted, the cauſtic fluid will act with its full violence, particularly when there is either no water to quench exceſſive thirſt, or, at the utmoſt, putrid and corrupted water.

In a ſimilar manner, he is inclined to believe, that a ſudden ſuppreſſion of perſpiration, and putrid or corrupted food, particularly from the animal kingdom, will ſo change the fluids of the body, that they may become highly cauſtic, and even give riſe to Rabies Canina. He admits, however, that every ſudden ſuppreſſion of perſpiration by no means gives riſe to rabies.— Hence he finds it neceſſary to ſuppoſe, that there muſt be preſent ſome peculiar diſpoſition of the body; ſuch, for example, as a ſingular acrimony of the bile, for the production of the diſeaſe from this cauſe.

In farther confirmation of the doctrine of cauſticity, Dr Brevel next endeavours, on this ground, to explain the more remarkable ſymptoms of the diſeaſe. And, in the *firſt* place, he obſerves, that the pain from the bite of a

rabid animal, differs ſomewhat from that ariſing from ſimilar lacerated wounds. For, to the common pain ariſing from a ſolution of continuity, and proportioned to the ſenſibility of the part, there is ſuperadded a peculiar pungent and burning pain, ſimilar to that which ariſes from common cauſtics applied to the body. And a ſimilar ſenſation is often alſo felt at the part formerly wounded, long after it has been cloſed by a firm cicatrix. He obſerves, that wounds inflicted by rabid animals, heal even ſooner than ſimilar wounds from other cauſes, which he aſcribes to the cauſticity of the poiſon, producing a greater afflux of glutinous fluids to the part.

But it is not, he thinks, upon the ſolids of the body alone that this cauſtic matter exerts its influence: the fluids alſo, particularly the bile and ſaliva, are, he imagines, affected by it. From the cauſtic quality acquired by the ſaliva, many of the ſymptoms are, in his opinion, to be explained. From ſtimulating the ſecreting organs, a greater ſeparation of this fluid takes place; and, from admixture with the air in reſpiration, it is collected at the mouth under the form of froth. From the retention

tion of cauſtic ſaliva in the mouth, ariſes a muſcular contraction, reſiſting that extenſion which is neceſſary to deglutition. And he accounts for the greater inconvenience which enſues from attempts to ſwallow fluids than ſolids, from the preſſure of the ſolids producing inſenſibility to the cauſtic ſtimulus, at leaſt for the time. He conſiders this as a more rational explanation of the ſymptom of difficult deglutition, than that the dread of water ariſes from perturbation of mind alone.

Though patients ſubjected to rabies, by a ſort of inſtinct as it were, avoid ſwallowing their ſaliva, yet a conſiderable quantity of it muſt neceſſarily make its way into the ſtomach, both with food and medicine, and there communicate its cauſtic ſtimulus to the ſuccus gaſtricus. In the ſame manner, alſo, the ſecretion of bile is, he thinks, both increaſed and vitiated, and becomes the cauſe of many of the moſt diſtreſſing ſymptoms. Hence, he thinks, ariſes the ſenſe of diſtreſſing heat at the ſcrobiculus cordis, the colic pains, the bilious vomitings, and the like; which, unleſs this acrid bile be either diſcharged by the efforts of nature or of art, in a very ſhort ſpace

brings

brings a termination of life, under the moſt excruciating pains.

Having thus endeavoured to ſhew, from the peculiar ſenſation excited at the wound, from the change of the ſaliva, and from the effects of the bile, that ſeveral of the moſt remarkable phænomena of the diſeaſe are to be referred to the principle of cauſticity, he next proceeds to compare ſome other poiſons, the cauſticity of which he conſiders as certain, with the poiſon of a rabid animal. The poiſon of the Viper, of the Ticunas, and the diſtilled water, or eſſential oil, obtained from the leaves of the Laurocerafus, agree ſo much with each other, that he views them as differing only in the degree of their effects. Of all theſe, he conſiders the poiſon of the viper, however, as approaching moſt nearly to that of the dog ſubjected to rabies. This poiſon, he obſerves, when introduced into wounds, excites a burning ſenſe of pain, and renders the wound livid and black. The ſame, however, is, he aſſerts, alſo the caſe with the poiſon of the rabid dog. After the poiſon of the viper has been introduced into a wound, if all communication with other parts be cut off,

off, either by means of a ligature, or by the complete removal of the part, no dangerous conſequences follow. In this, alſo, it agrees with the poiſon of the dog.

The bodies of thoſe animals who are killed with the poiſon of the viper, ſhew, he tells us, phænomena ſimilar to thoſe dying from the bite of rabid animals; the blood of both being in a diſſolved ſtate; the bodies, on diſſection, emitting a high degree of fetor; and red, livid, gangrenous ſpots appearing every where in great numbers. And, finally, he obſerves, that convulſions, nauſea, and vomiting, with a large diſcharge of bile, equally affect animals bit by a viper and by a rabid dog; from which he infers, that the cauſtic ſtimulus of the poiſon, is, in both caſes, equally the cauſe of the effuſion of bile into the inteſtines and ſtomach.

After this compariſon of theſe poiſons, Dr Brevel next relates ſome experiments which he made, which ſerve, he thinks, to confirm his opinion reſpecting the cauſticity of rabid animals. As, from the experiments of Fontana, it appeared that the poiſon of the viper, excepting the circumſtance of cauſticity, was very

very ſimilar to gum arabic, Dr Brevel wiſhed to ſee, whether, by communicating cauſticity to a ſolution of this gum, he could produce the ſame conſequences as Fontana had found to ariſe from the poiſon of the viper. With this intention, he poured a ſolution of gum-arabic, about the conſiſtence of a ſyrup, upon quicklime. He paſſed threads, wetted with this ſolution, through the pectoral muſcles of three chaffinches. The birds, in a ſhort time, were thrown into convulſions, and died before evening. He applied, in the ſame manner, to ſeveral chaffinches, threads impregnated with putrid bile, which were ſo ſuperficially introduced, that little or no blood was diſcharged from the wounds. But, in the ſpace of four hours, all of them died violently convulſed.

With one bird he inflicted no wound, but applied a little of the putrid bile to its tongue. In this caſe, the poiſon ſeemed to act more ſlowly, but with the ſame effect; for, in the ſpace of five hours, it died convulſed. He next tried the effect of putrid bile on a larger and more robuſt animal. He inſerted into a recent ſkin wound, made on the leg of a middle-

dle-ſized vigorous dog, two threads infected with putrid bile. In the ſpace of an hour, the dog was ſeized with ſhiverings and ſlight convulſions, which laſted the whole day. The next day he was eaſier, and his appetite in ſome degree returned; but the wounds emitted a remarkable fetor. Though this experiment was not puſhed farther, yet Dr Brevel thinks, that from a greater quantity of bile, more ſerious effects, and even rabies itſelf, may perhaps have been produced.

Dr Brevel next makes ſome compariſon of the venereal poiſon with that of the mad dog. Heat, he obſerves, has great influence in evolving the venereal poiſon, as appears from ſyphilis, being a diſeaſe which originated in warm climates, and it has a ſimilar effect on the poiſon of rabid animals. The cauſticity of the venereal poiſon clearly appears, he tells us, from the inflammation, exulceration, and pain which it occaſions; while the venereal poiſon, as well as that of the mad dog, acts very powerfully on the ſalivary organs. And, finally, mercury, he tells us, is a powerful remedy againſt both.

After

After theſe obſervations on the theory of Rabies Canina, Dr Brevel next proceeds to make ſome remarks on the method of cure. He firſt conſiders what plan of treatment would naturally be ſuggeſted by his hypotheſis concerning the nature of the poiſon of rabid animals; and then, from various obſervations on the remedies which, from former experience, have been found uſeful, he endeavours to ſhew in what manner they either counteract, deſtroy, or leſſen the effects of cauſticity.

The firſt and principal care muſt be, that the poiſon ſhould, as quickly as poſſible, be removed from the wound, or at leaſt prevented from entering the circulation. Complete exciſion of the wounded part, or even amputation of the member, is certainly the moſt ſecure precaution in ſuch caſes. Where this is impracticable, ſcarifications, as deep as they can eaſily be made, are to be adviſed, conjoined with careful waſhing of the part, either with tepid water, or with alkaline lixivium, which, from its power of diſſolving coagulable lymph, ſeems to be preferable. Recourſe may alſo be had to burning the part; for which purpoſe,

purpoſe, he conſiders waſhing with diluted vitriolic acid, as preferable to other practices; by which means the poiſon may be involved with coagulated lymph, and thus its abſorption prevented.

After ſcarification and burning, he directs, that ſuppuration be by all means promoted. But, before having recourſe to digeſtives, he directs, that a ſolution of mercury in the nitrous acid be applied to the part, which, while it does not act with the ſame violence as other cauſtic fluids, can be much more readily applied to the whole ſurface of the wound, than cauſtics in a ſolid ſtate.

Theſe are the practice which Dr Brevel recommends, for moſt completely and expeditiouſly expelling the poiſon from the body; and they are, what we think experience has demonſtrated to be, the moſt ſucceſsful. He condemns the practice of thoſe who adviſe the application of oily and other lenient medicines, truſting the expulſion to the operation of nature alone. It may, however, be a queſtion, whether this practice is not more conſiſtent with the idea that the poiſon of rabies operates by cauſticity alone. For, were that the caſe, by the

the application of any cauſtic ſubſtance, the evil which we wiſh to avoid would neceſſarily be induced or augmented.

As Dr Brevel ſuppoſes, that bile effuſed in the duodenum, and rendered acrid, when gradually abſorbed into the blood, evolves the activity of the latent poiſon, he concludes, that the external treatment is not alone to be truſted to. He adviſes, in the firſt place, that the alimentary canal ſhould be freed from bile, by means of an emetic; and if, on account of the abundance of blood, the uſe of it ſhould not ſeem to be ſafe, he directs that blood ſhould be let. To this is to be ſuperadded, an irritating glyſter; and, after a few days, the emetic is to be repeated.

As a further mode of expelling the poiſon, he recommends alſo the uſe of ſudorifics; and, with this intention, he directs the employment of the Atropa belladonna, premiſing, to its uſe, the employment of the tepid bath. He conſiders, as of nearly equal efficacy in anſwering this intention with the belladonna, large doſes of opium and muſk; but theſe, he tells us, require to be conjoined with purgatives;

as,

as, otherwiſe, they occaſion a large effuſion of bile in the duodenum.

But, although ſudorifics be often proper in the winter; yet, when rabies occurs in the ſummer, as, by accelerating the circulation, they aſſiſt the diſſolution of fluids, to which there is at that time a tendency, they muſt be uſed with very great caution.

When manifeſt ſigns take place, of the poiſon having produced its effect in the body, recourſe muſt be had to ſtill more active remedies; and, that theſe may be employed without hazard, it is firſt neceſſary that blood ſhould be let. This evacuation, Dr Brevel thinks, ſhould never be omitted from fear of weakening the patient; for it is better that weakneſs ſhould occur, which we have it afterwards in our power to combat by nutritious diet, than that the patient ſhould fall a victim to the diſeaſe. When the hydrophobia has appeared, he adviſes that blood ſhould be drawn, even to deliquium animi. He adviſes, alſo, glyſters of water, impregnated with fixed air, or with hepatic air, to be frequently injected; and, when the patient can ſwallow, he adviſes large doſes of camphor, and of vi-

triolic acid, properly diluted. He recommends, alſo, that the throat ſhould be covered externally with cloths wetted with a ſolution of opium.

After giving this account of the practice which he thinks moſt adviſeable in caſes of Rabies, he concludes with ſome obſervations on particular practices, with the intention of ſhewing how far they are explicable on the theory he has given of the nature of the poiſon of rabid animals, and of pointing out at what periods of the diſeaſe they may be employed with greateſt advantage.

With regard to the uſe of ſcarifications, he remarks, that though theſe be of themſelves highly beneficial, yet very great danger is to be dreaded from expoſing them to the open air. In confirmation of this, he mentions ſome facts which have occurred to him; and he thinks it is to be explained from the quantity of pure or dephlogiſticated air which the atmoſphere contains, rendering the diſcharge from the wound more acrid and cauſtic.

While the uſe of veneſection has been by ſome condemned, by others it has been highly extolled. It has been alleged, that, in thoſe diſeaſes,

diſeaſes, in general, attended with violent ſpaſms, blood-letting is of no uſe: but, to this, Dr Brevel thinks it a ſufficient anſwer, that ſpaſms ariſe from many different cauſes. In the beginning of the diſeaſe, he thinks, blood-letting is only to be had recourſe to, when it is neceſſary as a preparation for an emetic; but, when the poiſon is once introduced into the circulating ſyſtem, he conſiders it as a neceſſary means for diſcharging the cauſtic ſtimulus; and he mentions ſeveral caſes in which very great benefit has been obtained, both from intentional and accidental loſs of blood, at this period of the diſeaſe.

Great controverſies have alſo taken place with regard to the propriety of employing bathing in this diſeaſe. As Dr Brevel thinks, that the bile has great influence in evolving and augmenting the activity of the poiſon, he concludes, that from the affection of the mind attending bathing, the hydrophobia will rather be accelerated than otherwiſe. He thinks, that cold bathing, in particular, is to be condemned, whether we conſider the diſeaſe as of an inflammatory or ſpaſmodic nature. And, to the reaſons urged againſt it by Nu-

gent and others, he adds, that from the quantity of dephlogiſticated air which the cold water contains, it muſt add to the cauſticity of the poiſon.

Warm bathing, he admits, is ſometimes uſeful, from giving a determination to the ſurface. But ſince, by the heat of the bath, the blood is expanded, and a ſpecies of plethora formed, he thinks that blood-letting ſhould always precede its uſe.

As ſome phyſicians hold the opinion, that rabies is a diſeaſe entirely of the ſpaſmodic kind, and that danger is ſolely to be apprehended from the convulſions, they place their confidence wholly in the uſe of antiſpaſmodic medicines. He ſuppoſes them to act in this diſeaſe in two ways: In the firſt place, by increaſing the impetus of circulation, and afterwards by debilitating thoſe powers which move the blood. On theſe principles, he thinks that the benefit derived from them in this diſeaſe may be explained; but he contends, that they are never to be truſted to alone, without the employment of other modes of cure.

He

He concludes this ſubject with ſome obſervations on the uſe of Mercury. This article has been, by ſome, highly extolled as an almoſt infallible ſpecific; and he conſiders the ſimilarity between the venereal virus, and that of rabies, as giving ſome countenance to this ſuppoſition; while it may alſo, he thinks, be inferred from the influence which both mercury and the poiſon of rabid animals have, in affecting the ſalivary glands. He is, however, far from conſidering it as a certain cure; and he tells us, that many caſes have occurred, where, though given with the utmoſt attention, the diſeaſe has yet proved fatal. He is, however, far from denying, that its influence in rabies is very great, which he attributes to the large proportion of phlogiſton it contains; but, on this account, he reckons it better that it ſhould be employed in ſubſtance, than either in a ſtate of ſolution or calcination. He thinks, that mercury is chiefly to be employed as the means of counteracting rabies, when wounds are made in the head, in ſuch ſituations that chirurgical aſſiſtance cannot be employed for the removal of the poiſon. But although, in the beginning of

the diſeaſe, large doſes may be given with advantage; yet he thinks, that after the poiſon clearly demonſtrates its effects upon the ſyſtem, mercury, by inducing ſalivation, and diminiſhing the ſtrength of the patient, will prove rather hurtful than beneficial.

II.

II.

A Treatiſe upon Gravel and upon Gout, in which the Sources of each are inveſtigated, and effectual Means of preventing, or of removing theſe Diſeaſes, recommended. 12mo, London.

THE diſeaſes which are the ſubject of this treatiſe, as the ingenious author, who, for reaſons beſt known to himſelf, has choſen to withhold his name from the public, obſerves, have long been ranked among the Opprobia Medicorum. Every attempt, therefore, to remove this reflection, even although not productive of the wiſhed-for effect, may juſtly be conſidered as well deſerving attention; and although we muſt own we are very doubtful, how far the means here recommended will be effectual, either in preventing or removing Gout and Gravel, yet we cannot help conſidering his eſſay as well meriting a

ſerious conſideration from every medical practitioner.

He ſets out by conſidering the matter of urinary concretions. He obſerves, that the concretions generated in the urinary paſſages, not only differ in ſize, figure, colour, texture, and ſpecific gravity, but that, when cut into, they are found of a laminated ſtructure; and that the ſeveral laminæ are ſometimes very different in appearance. All the opinions, he obſerves, entertained with reſpect to their nature, prior to the experiments of Scheele and Bergman, were either erroneous, or, at the utmoſt, conjectural; but, from the reſult of their experiments, it appeared that urinary concretions, however different in colour and texture, are eſſentially the ſame; and that they are formed of a peculiar ſubſtance, which, on account of ſome of its properties, they conſider as an acid. Theſe concretions contain very little, if any, calcareous matter, the acid being blended merely with a portion of animal gelatinous matter. From ſeveral trials made by our author, the opinion of Scheele was ſtrongly confirmed, particularly from the combination of this acid with magneſia,

ſia, and with the pure earth of alum. This acid, however, appears to him not to be a ſimple element, but to be a compound body. But its acidity being demonſtrated, it ought, he thinks, in chemical arrangements, to have a place among the acids; and, as forming the baſis of urinary concretions, it may, he thinks, be termed the Concreting Acid, or the Acid of Calculi.

He next makes ſome obſervations on the ſtate in which this matter is contained in the fluids of the body. By adding muriatic acid to clear urine, in the proportion of a dram to a quart, he demonſtrated the preſence of this acid in all urine. A redundancy of this concreting acid, producing any other ſeparation in the urine than the common cloud, is to be conſidered as preternatural. It is, however, frequently met with under particular ſtates of the ſyſtem; and it is ſometimes in ſo great quantity, that a depoſition of particles takes place in the urinary paſſages, giving occaſion to gravel and calculi. This may happen either from an affection of the veſſels of the kidneys, prediſpoſing to a greater ſecretion by them, or from a check being given to the ſecretion by the

the emunctories in other parts. For thus, a preternatural quantity of the excrementitious matter of the blood ſhall be carried off with the urine. In ſuch caſes, in place of the uſual cloud which ariſes from a ſmall ſuperfluity of acid, there would be that kind of ſediment by which a conſiderable redundancy is indicated.

Beſides this, as another cauſe of redundancy, he obſerves, that from an univerſal tendency to contraction in the emunctories, the acid may be retained in the veſſels, ſo as to accumulate; and when, at laſt, they are relaxed, it will appear preternaturally redundant in the urine. And, laſtly, he thinks, that in ſome caſes there may be an actual production, in the ſyſtem, of a greater quantity than uſual of the concreting acid.

From theſe circumſtances, occurring ſeparately or together, there will be in the urine a redundancy of concreting acid; and this, he thinks, in certain caſes, may perhaps ariſe to a ſufficient height for the production of calculi and gravel. But he thinks, that the phænomena of urinary concretions, are, in the greater number of inſtances, to be accounted for,

from

from the introduction into the veſſels of a foreign acid. For this foreign acid, ſecreted by the kidneys, and mingling with the urine, will precipitate the concreting acid which it contains, though united with lime, with animal earth, or with volatile alkali. To this opinion, of calculi being generated by the introduction of other acids, it may, he obſerves, ſeem to be an objection, that gravel is one of thoſe diſeaſes which is often tranſmitted by parents to their offspring. But he obſerves, that the acids of wine and punch are not more active in producing gravel, than thoſe generated by fermentation in the ſtomach; and a tendency to acidity, from weakneſs in the digeſtive organs, is, he adds, in the moſt pointed degree, hereditary. In this manner, then, he ſuppoſes, that gravel, occurring as an hereditary diſeaſe, is to be explained.

He thinks it probable, that the chryſtallization of concreting matter in the urinary paſſages takes place principally during the night, when the urine that has been ſecreted is free from agitation; and, if a cryſtal ſhould not be diſcharged ſoon after it has been formed, it muſt, by the addition of freſh matter, increaſe

in

in ſize. After ſome time, it will become too large to be paſſed along the ureters or the urethra. But, where ſuch cryſtallizations take place, they are, he thinks, very generally carried away by the current of urine, before they have arrived at this magnitude.

The growth of urinary concretions is not always, he obſerves, equally rapid; but will, he thinks, be in proportion to the redundancy of the acid, the degree of agitation in the urine, and the length of time for which it ſhall be retained after it has been ſecreted. All the varieties in colour, he conſiders as proceeding from adventitious matter attaching itſelf to the redundant acid; while firmneſs of texture will depend very much on the cryſtallization not being interrupted by the motion of the body, or by the viſcidity of the urine, from mucus, or any other cauſe. He concludes his remarks on this ſubject, with obſerving, that the irritability of the urinary paſſages, is, in ſome, much greater than in others; and hence, there are inſtances of calculi having exiſted in the urinary paſſages for a conſiderable length of time, without producing much uneaſineſs.

Our

Our author next proceeds to conſider the cauſe and progreſs of Gout. He obſerves, that a precipitation of the concreting acid in the fluids, is attended with prejudice to other parts of the ſyſtem, as well as to the urinary paſſages. When the acid happens to be detained from ſubſtances with which it was combined, it becomes a ſpecies of matter to which the body is unaccuſtomed. And, when the redundancy is very conſiderable, a depoſition of the particles will take place in the blood-veſſels, ſo as to give an interruption to the freedom of the circulation. It is, he thinks, in conſequence of ſuch interruption, that there frequently ariſes a peculiar affection of the inflammatory kind, which is denominated Gout.

To illuſtrate and confirm this opinion, the author enters into a compariſon between rheumatiſm and gout. He conſiders impediment to the circulation, as the proximate cauſe of each; but he contends, that the circumſtances producing that impediment are different. In the firſt, he ſuppoſes it to ariſe from a diminiſhed ſize of the veſſels themſelves, proceeding from ſpaſm: In the ſecond, from the preſence

ſence of an uncommon matter, the concreting acid. But in both, the obſtruction, he thinks, has the effect of occaſioning an increaſed impetus of the blood, by which the obſtruction is at length overcome, and the circulation reſtored.

On this theory, he attempts to ſhew how the muſcles and the ſkin are moſt frequently affected with Rheumatiſm, and the tendons, ligaments, and membranes, with Gout, from the ſmallneſs of the capillary veſſels in the latter, and from the principle of motion in thoſe of the former; and he endeavours to draw a farther confirmation of his opinion from the cauſes of Gout. Theſe he refers either to acids introduced into the body, or generated in it. On the firſt principle, he explains the influence of acid wines: On the ſecond, he accounts for the induction of the diſeaſe, by intoxicating compounds of any kind; by a life of luxury; by a ſtate of indolence; and by an inordinate purſuit of pleaſures. For, by theſe, the powers requiſite for the proceſs of digeſtion are brought into diſorder, and the vegetable part of the diet is permitted to run into the acetous fermentation.

Although

Although we readily allow that this theory has the merit of ingenuity; yet, like every other hypotheſis reſpecting the cauſe of gout, we cannot help conſidering it as liable to many objections. It is even, we think, matter of great doubt, how far inflammation is, in any caſe, the conſequence of obſtruction. It is very certain, that obſtruction often ſubſiſts without inflammation; and that, on the other hand, many cauſes of inflammation cannot be ſuppoſed to have any influence in inducing obſtruction. But, even taking this part of the hypotheſis for granted, it is ſtill very difficult to conceive, in what manner many phænomena of the diſeaſe can be reconciled with this proximate cauſe. The ſudden attack of this affection; its ſudden tranſition from one part of the body to another; the inſtant relief of one part, when another comes to be affected; and, finally, the various anomalous forms which the diſeaſe puts on, having an exact reſemblance to different affections, are, in our opinion, irreconcileable to the idea of its depending on any fixed obſtruction at a particular part, ariſing from concreting acid.

On

On this theory, however, our author next proceeds to explain the ſtate of the body moſt favourable to gout. He remarks, that a redundancy of the concreting acid, giving occaſion to obſtructions in particular parts of the body, is in general to be aſcribed to the introduction of a foreign acid. But it may, he tells us, ariſe alſo from the actual production of a preternatural quantity, either of this acid, or of the other native acids; and, in all caſes, he conſiders ſuch accumulation as extremely conducive to the production of this affection. But, when the ſecretion by the various glands is eaſy and rapid, there can never, he thinks, be any conſiderable redundancy, as the acid will be evacuated from the circulation as faſt as it is detached. But, on the other hand, when there is a diſpoſition to contraction in the ſecretory veſſels throughout the body, the redundancy may become great. Hence, he conſiders a deficiency of ſecretion as prediſpoſing to gout; and, on this principle, he explains the influence of warm climates in preventing gout, the frequent occurrence of the diſeaſe with the robuſt, and with thoſe far advanced

vanced in life, and its very rare occurrence with infants, and even with females.

In explaining the phænomena of a paroxyſm of gout, he obſerves, that when the freedom of circulation is interrupted by the redundant acid, the conſequent inflammatory affection may yet be forwarded by a variety of circumſtances. On this ground, he explains the induction of a fit of gout by the uſe of ſtimulants, by unuſual repletion, or by a greater degree of exerciſe than the body has been accuſtomed to; and theſe have been, in general, termed, Occaſional cauſes of the diſeaſe. On the ſame ground, alſo, he accounts for the chief appearances attendant on a regular paroxyſm. He conſiders the circumſtance chiefly conſtituting the diſeaſe, as being an inflammation in parts, of which the functions have been interrupted by the redundant acid. It is, he thinks, moſt frequently excited in the tendons and ligaments of the feet; becauſe, in them, the interruption is the greateſt. From this there ariſes very acute pain; and the increaſe of action is communicated, not only to the veſſels of the ſurrounding part, producing ſwelling and redneſs, but, in a greater or leſs de-

gree, to the heart, and to the whole arterial ſyſtem. By means of this augmented impetus of the blood, the obſtruction is in a ſhort time overcome, and the tendency to contraction, in the various emunctories, removed; and the redundant acid, which, till then, had been prevented from paſſing off by the kidneys, appears in the urine as a lateritious ſediment. By the continuance of the relaxation for ſome days, the whole of the accumulated acid is diſcharged, the increaſed action ſubſides, and every thing returns to its natural condition. In this manner, then, he explains the phænomena of the regular paroxyſm.

Some have conſidered a regular paroxyſm as having the property of reſtoring the vigour of the ſyſtem. Our author, however, thinks, that, of itſelf, it cauſes a diminution of ſtrength; but, by removing every morbid affection, it gives the ſyſtem a diſpoſition for acquiring vigour. And, from the incompatibility of two diſeaſed actions occurring at the ſame time, a doctrine which he conſiders as eſtabliſhed by Mr John Hunter, it proves, he thinks, an univerſal remedy for chronic complaints, which were the ſource of permanent debility.

After

After theſe obſervations on the cauſe of gout and of gravel, the author proceeds, in the third and laſt part of this work, to treat of the prevention and cure of theſe two diſeaſes. He endeavours to ſhew, that they may be both prevented and cured by guarding againſt a redundancy of acid. And, as a preternatural redundancy of the concreting acid, giving occaſion to gravel and gout, appears in moſt caſes to have ariſen from the introduction of foreign acids, the means of prevention muſt be pointed againſt that circumſtance. And they may, our author thinks, come under three diviſions: 1*ſt*, Abſtinence from acids; 2*dly*, The prevention of acidity from fermentation; and 3*dly*, The deſtruction of the acid. On each of theſe heads, he offers ſome obſervations.

The acids produced by fermentation, and the native acids of fruits and vegetables, are, he obſerves, more frequently conveyed into the ſtomach than any other. In liquors that have undergone the vinous fermentation, there is, in general, more or leſs of the acid of tartar; and thoſe wines in which it exiſts in greateſt proportion, have been found produc-

tive of arthritic and nephritic complaints. And, although a total abſtinence from wine is ſcarcely to be expected; yet our author thinks, there cannot be much hardſhip in ſuffering ſome reſtriction in the choice of wines. Thoſe wines in which the proportion of ſpirit is the greateſt, in general contain leaſt of the acid of tartar; for, being inſoluble in ſpirit, it is depoſited in the caſk. The beſt wines, in our author's opinion, are Madeira, Sherry, and Port. Theſe, when arrived at a proper age, by which both the tartar is depoſited, and the native acid of the grape deſtroyed by fermentation, may, he tells us, be uſed in moderation. But Claret, Champaigne, and other ſmall wines, in which the proportion of acid is conſiderable, ſhould, he thinks, be entirely rejected, as they never can be indulged in with impunity. For the ſame reaſon, he is alſo for entirely prohibiting Cyder, Perry, and hard ales. And although, in many other malt liquors, the quantity of acid is not very conſiderable; yet, in gout and gravel, it will, he thinks, be better to abſtain from them entirely. For, in that ſtate of the ſtomach which frequently accompanies theſe diſeaſes, they are very

very apt to be converted into an acid, by running into fermentation. He adviſes, therefore, that pure water, or toaſt water, be ſubſtituted to table beer. He objects to even a ſmall quantity of ſpirits being mixed with the water, as it is apt to ſteal upon men by imperceptible degrees, till it gets ſo deeply rooted, that they have it not in their power to relinquiſh it.

The acid of vinegar is ſeldom uſed in ſuch quantity as to produce, of itſelf, a preternatural redundancy of the concreting acid; but, where there is already a redundancy, as a ſmall proportion of any acid muſt be detrimental, vinegar ſhould be rejected.

It is generally believed, that the native vegetable acid in the juices of fruits, is capable of undergoing the proceſs of digeſtion, by which it will be deprived of its acidity; and, in the common ſtate of the body, fruits afford nouriſhment, and are conducive to health. But, if the digeſtive powers be deficient, our author thinks they are inadmiſſible. The greateſt quantities of native vegetable acid are apt to be employed in punch; and he

is of opinion, that the diſeaſes here treated of frequently proceed from it.

When gout and gravel have originated from an exceſſive uſe of acids, unconnected with diſorder in the ſtomach, a cure may be effected, our author thinks, by ſtrict attention to the regulations laid down. And, even when the uſe of acids has only co-operated with the generation of acid, in producing theſe diſeaſes, conſiderable advantage will ſtill be derived from a diminution of the cauſe: And, a moderate quantity of wine being allowed, there cannot, he thinks, be any hardſhip or inconvenience in abſtaining from acids under every other form.

In treating of the prevention of acidity from fermentation, our author obſerves, that the production of acid in the alimentary canal, muſt always be conſidered as a mark of imperfection in the vital powers; and one method of preventing it is, to take care that nothing inclining to the acetous fermentation be received into the ſtomach.

Though the matter of animals is, of itſelf, incapable of becoming acid, and may therefore appear to be beſt adapted for the prevention of diſeaſes ſpringing from a redundancy

dancy of acid; yet animal ſubſtances, our author tells us, have often been obſerved to increaſe the tendency of vegetable matter to acidity. And, from this cauſe, a diſpoſition to the formation of acid in the primæ viæ has ſometimes been corrected by abſtinence from animal food. Milk, and the farinaceous matter of the ſeeds of the gramina, are more eaſily digeſted than any other ſubſtances from which an equal nouriſhment is obtained. Hence, they are peculiarly adapted to nephritic and gouty patients. They may be uſed under ſuch different forms as to give conſiderable variety; and the tendency of milk to acidity, is often fully corrected by the addition of ſolid matter, ſuch as bread, rice, oatmeal, or the like.

It is not, however, neceſſary, according to our author, to adhere to this diet in every caſe; but he recommends the excluſion of all kinds of fat, and high-ſeaſoned food. The lean part, however, of beef, mutton, or veal, and any kind of fiſh or fowl, that is light and eaſy of digeſtion, may be uſed in moderation. But he allows, that the effects of many ſubſtances, upon different ſtomachs, are ſo various, that

it is not an eaſy matter to give particular directions concerning diet. Experience, he obſerves, is the ſureſt guide; and every man muſt, in ſome degree, be regulated by his own feelings.

When the digeſtive faculties are conſtitutionally bad, or have been impaired by irregularities, there are various methods by which they may be brought into better condition. Nothing is of greater efficacy in reſtoring them, than proper exerciſe. But the action of the ſtomach appears alſo to be very much under the influence of the mind. Cheerfulneſs and good humour contribute exceedingly to the preſervation of health; but the peeviſh and the melancholy are peculiarly liable to have diſorders in the alimentary canal.

For the purpoſe of increaſing the tone of the ſtomach, our author recommends alſo the different vegetable bitters. When it is intended that the effects of theſe ſhould be confined to the ſtomach, ſmall doſes, he tells us, are ſufficient; and thoſe which have the leaſt aſtringency are to be preferred. Chalybeates have been employed with advantage for increaſing the digeſtive powers; but, from

their

their aſtringency, he thinks they are not equally ſuited to every habit.

The formation of acid in the ſtomach, may, he tells us, be ſometimes prevented, by the exhibition of ſuch articles as have a tendency to check fermentation. He recommends Camphor, as better ſuited for this purpoſe than any other article. If the uſe of theſe remedies be judiciouſly combined, with proper attention to diet, the acidity from fermentation, may, in general, he thinks, be avoided.

Sometimes, however, there will be a generation of acid, notwithſtanding every endeavour to prevent it. In that caſe, it becomes neceſſary to aim at its deſtruction. This may be effected, by employing a quantity of alkali, or of abſorbent earth, ſufficient for the ſaturation of it. Theſe enter into chemical union with the acid, ſo as to form compounds, in which the characteriſtic properties of each element are loſt; and, when thus neutralized, its influence on the fluids will be completely obviated. The volatile alkali, though little uſed, may, he thinks, be employed with advantage, when a ſtimulus is wanting for removing the faintneſs with which an imperfec-

tion

tion in the digeſtive powers is often accompanied. The fixed and vegetable alkalies differ very little in their effects. In their pure or cauſtic ſtate, they have been conſidered as too acrimonious for internal exhibition; but, to their employment in a mild or aerated ſtate, there are alſo objections. Some inconvenience, our author thinks, is even to be apprehended from the aerial acid being detached; but ſtill more from the diſtention which the vapour occaſions in the bowels, with unpleaſant ſymptoms of flatulency. The acid in the primæ viæ may be corrected by means of ſaponaceous compounds, as the attraction of the acid to alkali is ſtronger than to oils. But care ſhould be taken to obtain ſoap in the greateſt degree of purity; and he thinks that the Sapo amygdalinus of the Pharmacopœia is beſt adapted for internal uſe. The acrimony of the cauſtic alkali may be corrected, by diffuſing it through any mucilaginous fluid. In this manner, it may be rendered ſufficiently mild, without being offenſive; particularly when added to a baſon of veal or mutton broth; and, if they be boiled together for a minute or two, the combination will be very complete.

The

The earthy ſubſtances employed for the correction of acidity in the ſtomach, are, calcareous earth and magneſia. He conſiders theſe, however, as beſt fitted for the purpoſe, when they are free from aerial acid; and therefore, he prefers lime water and calcined magneſia, to chalk and common magneſia. He does not ſeem to be apprehenſive of any bad effects from their long continued uſe. The doſe muſt be proportioned to the degree of acidity; but it is much better, he tells us, to uſe them frequently during the day, than to give a great quantity at once. They may be employed before or after each meal; and bitter infuſions may be occaſionally exhibited along with them. Our author is of opinion, that if theſe practices be uſed with judgment, every particle of acid generated in the primæ viæ, and likewiſe any that has been received into the ſtomach, will be deprived of thoſe properties by which acids are rendered prejudicial.

This treatiſe is concluded with ſome obſervations, by which the author endeavours to prove, that alkalies will have the effect, not only of removing the matter from which calculus

culus proceeds, but alſo even of diſſolving calculi themſelves. The urine, when it does not contain any preternatural redundancy of acid, will, of itſelf, become a menſtruum for calculus. But, beſides this, he contends, that even the alkali itſelf may arrive at the kidneys in ſuch a ſtate as to act upon calculus.

Upon the whole, our author is of opinion, that by purſuing the plan recommended, not only the diſeaſes againſt which it is particularly levelled may be kept at a diſtance, but a multitude of others, proceeding from diſorder in the digeſtive faculties, may be mitigated and cured; and that ſtrength of mind, and ſound health, will ſucceed to infirmity and pain. We ſincerely wiſh, that this opinion may be confirmed by experience; but, although there can be no doubt that ſuperabundant acid is productive of many bad effects, yet we cannot help thinking, that there would be an equal error in the total deſtruction of it. For while, according to our author, the concreting acid, as he terms it, is the ſole cauſe of gout and of gravel, there is, we think, no leſs reaſon for believing, that the

the firmneſs of our bones entirely depends upon it; and that its exiſtence, in a certain proportion, is, in many particulars, eſſentially neceſſary for the health and conſtitution of the animal ſyſtem.

III.

III.

De Febre noſocomico. Auctore Sebaſtiano Cera, *M. D.* 4to, Mediolani. Vide *Commentarii de Rebus in Scientia Naturali et Medicina geſtis.* 8vo, Lipſiæ, *Vol. XXXII.*

THE third edition of this uſeful book, and that with the advice of John Galeatius, Duke of Serbellonius, who preſides over the great hoſpital at Milan with much applauſe, is augmented by a diſſertation on the Rural Epidemic Fever of that country. It is the fruit of twenty years obſervations made in that hoſpital. The fever here deſcribed, is a ſomewhat peculiar ſpecies of acute fever, chiefly approaching to the putrid kind; endemic, like the fevers of camps, ſhips, and priſons; ſeizing moſt people once or twice, and but rarely a third time. In the beginning, it comes on inſenſibly, and under the dreſs of a gentle catarrhal complaint; ſo that, of the firſt day of

of the diſeaſe, a conjecture is not to be formed; but it muſt be reckoned from the day of the patient's being confined to bed. The diagnoſtic ſymptoms, in the beginning, are principally a great loſs of ſtrength, with ſlight fever, and ſtomach complaints, not to be removed by the uſual remedies. On the third or fourth day after being confined to bed, ſmall ſpots appearing, afford a character of this diſeaſe, and at the ſame time mark the firſt ſtage of the complaint, often an inflammatory one; ſigns of ſaburra having, however, preceded it. After the 7th day, the ſymptoms of inflammation have almoſt gone; but the ſtomach complaints remain, and more ſevere putrid ſymptoms appear, ſuch as ſtupidity, coma vigil, purging, ſwelling of the belly, eſpecially when the increaſed diarrhœa is ſtopped either by art or nature, and, in more ſevere caſes, pain, and very fetid fæces. The worſt ſymptoms are, ſubultus tendinum, ſpaſm, and locked jaw; ſo that the patients die convulſed. In the beginning, the fever has the paroxyſms of an intermittent, not yielding to Peruvian bark; but, in its progreſs, it becomes continued and more ſevere. Then, however, it for the moſt

moſt part ends in health. The urine, in the beginning of the diſeaſe, is often crude and watery. Remaining ſaturated for ſeveral days, it foretells convulſive affections. When it is ſcanty and without ſediment, ſuddenly becoming limpid, it is a ſign of delirium. In thoſe who are to recover faſt, for the moſt part about the fourth day, it is of a citron colour, with a light white ſediment. The frequent iſchuria, in the beginning of the diſeaſe, is to be cautiouſly enquired into, whether it be renal, or originate in the bladder.

Beſides defiled air and bad food; lying in the bed which a ſick perſon has uſed, or ſtill uſes, the inſpiration of air exhaled by the ſick, and his clothes, favour the communication of the diſeaſe. The diverſity of the conſtitution, and duration of the diſeaſe, depends upon the diverſity of the concomitant circumſtances, time of year, and epidemic conſtitution. The voracious, and thoſe indulging in too frequent uſe of wine, the fearful, thoſe much given to venery, and thoſe too much addicted to their ſtudies, are moſt ſeverely affected; but thoſe labouring under mental hypochondriaſis, for the moſt part remain free, perhaps on account of the

the acid reſiſting putridity. The other cauſes are, air not renewed, cohabitation with the ſick, with the greater or leſs number of putrid diſeaſes occurring in the hoſpital at that time. Its degeneration into a chronic diſeaſe, and death ſupervening, often to the more robuſt, rather than the weak, is frequently owing to the abuſe of blood-letting.

The internal cauſe, according to our author, in the firſt ſtage, is a gaſtric ſuburra, and ſlight inflammatory habit: In the ſecond, an acrid putridity in the whole maſs of humours, for the moſt part hurtful to the nerves. Sometimes a real inflammatory fever ariſes in the hoſpital, which muſt be carefully diſtinguiſhed from the putrid one, ſo frequent. Theſe caſes are, however, eaſily converted into putrid fevers. Worms do not conſtitute a peculiar cauſe of this fever, although they are not to be neglected when they appear to be preſent. A weak mind is favourable, both to the generation and duration of the diſeaſe. A conjunction with ſcurvy and phthiſis is often a cauſe of the length and ſeverity of it. The ſame likewiſe happens from the venereal diſeaſe; which, however, the powers of na-

ture and art being ſufficient, is driven off along with it. The cauſes occaſioning and favouring a putrid fever in the country, are, an incautious heaping of carcaſes, ſtagnation, and other cauſes, vitiating the air, and laſtly, want of victuals. The occaſional cauſes are referred to abuſe of animal, and neglect of vegetable, food.

This diſeaſe, for the moſt part, terminates on the fourteenth day after confinement to bed. Sometimes it is protracted longer; and it rarely ends on the eleventh. A ſudden criſis ſeldom occurs about the ſeventh, although its forerunner, a ſediment in the urine, ſhewed itſelf on the fourth day. It oftener happens by the belly on the fourteenth day; and, unleſs this be the caſe, on the twenty-firſt. In thoſe about to die, there is no mark of criſis by the urine. By the ſymptoms, we may determine whether a flux by the belly be critical or ſymptomatical. In apparently deſperate caſes, a criſis happening, ſometimes reſtores the ſick perſon unexpectedly. The ſigns by the urine, are Iſchuria veſicalis, a forerunner of coma, and true Lethargy. The pulſe, in the firſt period, is often inflammatory; in the ſecond,

cond, it is for the moſt part ſmall, and ſometimes unequal. Much, however, is not to be dreaded, unleſs at the ſame time it be pretty quick and hard, the phlogiſtic ſtate, joined to the putrid, coming on again. The longer peticulæ are of appearing, the leſs danger they portend; nor do they diſappear on the acceſſion of a diarrhœa; but ſometimes, at the approach of the criſis, critical miliary eruption immediately following, a fatal metaſtaſis takes place to the head and nerves. The joints of others become gangrenous; particularly of thoſe in whom, by the end of the diſeaſe, the flux became ſlower, or was untimely checked. Gangrene, preceded by a ſevere pain in the part to be affected, quickly ſpreads. It remains a difficult problem, whether amputation will ſtop it. It ſometimes extends to more than forty days; while the patient, at length, periſhes by a gradual decay. Gangrene, from lying in bed, and filth, is much to be dreaded. A tumor of the parotid gland is always fatal, unleſs, in a few days, it be either reſolved, or terminated in a good ſuppuration. A complication of the diſeaſe with lues venerea is dangerous. This fever is ſometimes under

the form of a double tertian, ſometimes remittent; but is diſtinguiſhed by the ſymptoms peculiar to the hoſpital fever, and the fruitleſs uſe of febrifuges. Sometimes, however, after forty days have elapſed, it changes, with a good omen, into a tertian, which is cured, either ſpontaneouſly, or by the uſe of Peruvian bark.

In the beginning, from half a dram to a dram of the powder of ipecachuan is to be uſed as an emetic; and ſometimes there is advantage from the repetition of it. But the author does not preſcribe it for a third time; as then, the matter is, he imagines, too crude to be overcome, either by emetics or cathartics. If emetics be improper, we muſt uſe gentle laxatives, ſuch as cream of tartar, rhubarb, and chiefly the pulp of tamarind, or its ſolution. Sometimes both vomiting and purging are produced by eight grains of ipecachuan, and twelve of rhubarb. A ſpontaneous looſeneſs is to be aſſiſted by the pulp of tamarinds and cream of tartar. Anthelmintics are only to be preſcribed in caſes of worms. He thinks, that mercurius dulcis, and diagridium ſulphuratum, are the moſt proper.

Antiſeptic,

Antiſeptic, abſtergent, and ſometimes ſtimulant clyſters, are to be uſed; but they muſt be cautiouſly exhibited in caſes of pregnancy. He mentions an example of a pregnant woman being cured by the uſe of repeated doſes of the Engliſh purging ſalt. In patients ſubjected to hernia, when there occurs a neceſſity for the uſe of cathartics or emetics, we muſt prepare for them, by putting the hand on the hernia during their operation.

Veneſection is to be cautiouſly preſcribed, according to the phlogiſtic diatheſis. A hard pulſe often deceives, happening from the irritation of the acrid fluid. This is eſpecially the caſe, if, at the ſame time, it be ſmall and quick, and joined with a daily exacerbation, coma vigil, convulſions, limpid urine, very fetid fæces, and the blood drawn be not phlogiſtic. Sometimes, after a laſting diſeaſe has been preſent, the blood is inflammatory, even in relaxed, indolent, and pallid habits, eſpecially in women. The inflammatory ſtate ſometimes comes on again, though rarely; and then there is need of a new veneſection. The cauſe is more frequently to be attributed to an error committed in diet, requiring the uſe of evacuants; or the criſis is

at hand, which is eaſily diſturbed by veneſection. The place from whence blood is to be let, does not ſeem of much conſequence; but, when the brain is affected, a ſection of the jugular vein, or temporal artery, is to be preferred. The ſequelæ of arteriotomy, however, ſuppuration, and hæmorrhage ariſing from it, deſerve the greateſt caution.

The other remedies, in the firſt ſtage of the diſeaſe, are antiphlogiſtics, as, vegetable acids. Some have been cured by the daily uſe of the juice of twenty or more lemons, diluted in water. Nitre, particularly in a ſcanty ſecretion of urine, has been of ſervice. Mineral acids in ſymptomatic hæmorrhages, in which opium is ſcarcely proper, and not unleſs joined with acids, are often uſeful. Cold water alſo has been found very advantageous.

The remedies in the ſecond ſtage, are camphor, the moſt powerful antiſeptic; but, when given by the mouth, it often creates nauſea. Exhibited to the extent of two drams in clyſters, with almond emulſion, gum arabic, and emollient decoction, it has been productive of much benefit, a looſening enema being ſubjoined, if the belly become bound. It is neceſſary

to be cautious in ſtopping a flux by aſtringent clyſters. After the pains are allayed, a gentle purgative is to be given, conſiſting of caſſia, tamarinds, and ſoluble tartar. But, if the bilious humours are very foul, in place of the ſoluble tartar, half a dram, or a ſcruple, of roaſted rhubarb, is to be employed. If the gripes ſtill, however, remain, an emollient injection, with a ſmall doſe of philonium, is to be given. In diarrhœa, with gripes, an emulſion of camphor, with ſyrup of white poppies, is highly uſeful. In a troubleſome teneſmus, accompanied with an excretion of a bloody mucous matter, and debility, clyſters of chalybeate milk, with yolks of eggs, may be employed. After the diarrhœa is checked, if a great putridity remains, the anodoyne liquor of Hoffman is to be given, from twenty to ſixty drops, to counteract the ſwelling of the belly. If the neck be principally affected, ſuccinated ſpirit of hartſhorn, properly ſaturated, may be employed to the extent of twenty or ſixty drops. If iſchuria renalis be conjoined with this ſtate, the ſal volatile Succini is to be employed alone. Muſk is uſed in con-

vulſive affections, if other antiſpaſmodics do not ſucceed, beginning by giving a grain every ſixth hour. Conjoined with the extract of Peruvian bark, it forms an elegant compoſition for a bolus. The bark is, however, cautiouſly to be avoided, when inflammatory ſymptoms prevail. Then bleeding is the beſt remedy. Camphor, in urgent caſes, may be given even to the extent of three drams in a day; and, in the way of injection, to ſix or eight. Peruvian bark is not equal to it, becauſe it loſes its febrifuge quality in acute caſes; and its antiſeptic one alone remains, when there is nothing requiring it. It is only to be exhibited when the fever becomes tertian It is hurtful, or at leaſt of no uſe, where obſtruction of the viſcera or inteſtinal canal, or ulcers, are preſent, either internally or externally. Then the worſt change happens, by a degeneration of the fever into phthiſis pulmonalis, eſpecially in youthful and hectic diſpoſitions. In ſuch caſes, all ſpirituous, aromatic, and ſaline ſubſtances, are hurtful. Demulcents are to be employed, and mild cathartics; as, tamarinds, with caſſia. Gentle

pectorals

pectorals and anodynes are to be uſed; and, when the fever is going off, abſtergent and balſamic medicines. The beſt remedy, however, is an iſſue in the arm. The cauſes of this degeneration, are, impure air, and too full diet.

Gangrene is prevented by the immediate application of emollient anodynes, conjoined with the internal uſe of purgatives. When a ſwelling of the feet remains after the fever, it is cured merely by a nouriſhing diet, and internal roberants. Eryſipelas affecting the head is to be combated by blood-letting and antiphlogiſtics. But we may overcome it, when more ſlight, and affecting the extremities, by fumigation with amber, and gently opening the belly. An abſceſs, in conſequence of this fever, is to be treated according to the general method uſed in other inflammations. Gangrene, from long confinement to bed, is to be prevented by Peruvian bark and camphor, which are of the greateſt advantage in wet gangrenes, but are leſs beneficial in the dry ſpecies. Bliſters are uſed in lethargic ſleep, and proſtration of ſtrength; and likewiſe wine,

wine, and the elixir of vitriol, all other cordials and antiſeptics being often uſed without effect. Frictions with vinegar, and its vapours, when diſperſed in the bed-chamber, are uſeful. Sinapiſms are to be applied, but not longer than is neceſſary, leſt, pain being excited, they ſhould produce fever and convulſions.

The author then proceeds to treat of the diet at the different periods of the diſeaſe, which is to be accommodated to the conſtitution. Concerning the regimen of women who are nurſing when affected with this fever, he obſerves, that they are to be recruited by the uſe of the arcanum duplicatum, bliſters, and camphor, the odours of which are not, in general, offenſive to women in childbed. But a ſmall blood-letting, and low diet, will ſometimes be neceſſary.

He then treats on the means of prevention, both general and particular. His directions are good, upon the whole, but contain nothing new.

To the preſent edition of this treatiſe, is added an appendix, concerning a fever analogous

gous to the former, which was obſerved after the publication of the foregoing work. This fever chiefly happens in workhouſes and bride-wells, and therefore is denominated the Jail fever. Its ſymptoms, and method of cure, are nearly the ſame. The diſſection of thoſe who died, threw no light on the diſeaſe.

We have here alſo the deſcription of another diſeaſe ſimilar to this, which has raged epidemically, almoſt every year, in the dutchy of Milan, amongſt the huſbandmen; chiefly thoſe inhabiting the moſt parched lands, and hills expoſed to the mid-day ſun. Its cauſes are, the impure and humid air of the ſtables, which ſerve them in the winter for houſes; the ſudden check given to their perſpiration, occaſioned by expoſing themſelves to rain immediately on quitting theſe habitations; the impure water of their wells; cloſe contact with infected perſons, and making uſe of their clothes; their ſlothful and wilful dirtineſs; and the neglect of cleaning their ſtreets. The phænomena of the diſeaſe are almoſt ſimilar to the former; but, for the moſt part, if not always, it was accompanied with lumbrici and

putrid

putrid matter, giving riſe to vermin. With moſt of thoſe labouring under this epidemic, there occurred an almoſt continued tertian. The cure is, for the moſt part, the ſame as in the hoſpital fever; but anthelmintics are never to be omitted; of which, however, no one ſeemed to be always preferable to the reſt. Thus, in the caſe of the gourd worm, after many articles had failed, they have been removed by the uſe of the elixir propritatis. The general remedies of this fever, were, generous wine, acid vegetables, and ſometimes aromatics. For the poor, the root of filix mas is beſt adapted for worms. The uſe of mercury is to be dreaded, on account of the diarrhœa and diſpoſition to putridity which it occaſions. Emetics are of much uſe in the beginning of the diſeaſe, but much leſs in the end. Of the purgatives, cream of tartar may be employed alone, or conjoined with the powder of the fern, or rhubarb. Veneſection is to be ſeldom uſed. Two claſſes of alteratives, the antiphlogiſtics and antiſeptics, are often alſo of ſervice. The other means of aſſiſtance, are to be derived from the food, clothing, purification

cation of the air, and the care of attendants. The preventives are, the purity of the air, conſtruction of better houſes, and better water. The neceſſity of conſtructing country hoſpitals, into which the ſick ſhould be put, even againſt their inclination, that the contagion may be ſtopt, is, our author thinks, an obvious meaſure.

IV.

IV.

Deſcriptio Phrenitidis et Paraphrenitidis Monaſterii in Weſtphalia, circa medium menſis Martii graſſari incipientium vere contagioſarum earumque, factæ curationis. A Ferd. Saalmann, *M. D.* 4to, Gottingæ. Vide *Commentarii de Rebus in Scientia Naturali et Medicina geſtis.* 8vo, Lipſiæ, *Vol. XXXII.*

THIS deſcription is dated the 30th of April 1788; but an appendix of the 30th of June is added, after the violence of the contagion was gradually diminiſhing. We will therefore here preſent our readers with obſervations extracted from both.

The diſeaſe, from the 2d of April to the 30th of June, attacked more than four hundred and fifty men, of whom thirty-two died; and of theſe, indeed, nobody under twenty years of age, although it ſpared no age. It attacked

attacked almoſt none, except of the loweſt rank, who were covered with filth and naſtineſs; and the contagion was, by that means, propagated to ſuch a degree, that, in a ſmall hovel, five, eight, or more, were ſeized with it. For the moſt part, it began, like the catarrhal fever, gradually with pain, or a peculiar ſenſe of uneaſineſs of the head, back, loins, and joints; in many, with tremors of the joints, and intolerable pain of the hands, feet, and legs; in ſome, with an univerſal ſtupor, and rigidity of the whole body; with pain, tenſion, anxiety, and beating of the heart; with nauſea, and a painful ſenſe of weight in the ſtomach; likewiſe with vomiting, or at leaſt heartburn, and ſometimes gripes. The tongue, from the firſt, was white, and for the moſt part very dry, ſometimes growing black a little before death. There was, not unfrequently, an uncommon deſire of ſleep, but it was ſhort, reſtleſs, and unrefreſhing, with peeviſhneſs and unuſual anger; ſometimes forgetfulneſs; in a few, delirium and difficulty of hearing, and a ſenſe of ſuffocation, like that in Hyſteria. After the fifth, or at leaſt the ſixth or ſeventh day, delirium came on, the eyes

became

became bloody, and full of tears; reſpiration more difficult; and, in ſome, the ſkin was of a jaundice colour.

In ſome, the diſcharges by the belly are bilious, and ſometimes many worms are preſent; in others, there are alternate white and bilious fæces; their ſleep is unuſual; their hearing, formerly difficult, is now quicker, and then again duller. Their urine, in the beginning pale, becomes of a deep yellow colour, then depoſites a black ſediment; and, when death is at hand, it becomes ſometimes the colour of ink. A ſweat is perceived, chiefly on the upper parts of the body. The pulſe is generally natural. In ſome, there are marks of blood in the excretions by the bladder, rectum, and noſtrils; and blind piles diſtreſs the patient.

Forgetfulneſs and ſleep gradually increaſe. Singultus comes on, with paralyſis of the tongue, and difficulty of ſpeaking; and, between the 12th and 20th day, death cloſes the ſcene.

This diſeaſe, when in a more ſevere ſtate, that is, ſuch caſes as terminated in death before the 12th day, preſents, from the beginning, moſt of the ſymptoms above mentioned, ſome even more

more violent. On the fourth day, all became worſe. They were attacked by death, either in the ſame manner with peripneumonic perſons, or by convulſions. In the moſt ſevere caſes, they died in a lethargic ſtate.

The fever, in both kinds, when ſlight, is ſometimes increaſed on the fourth day. From this time it becomes more ſevere, the fits coming on daily, ſometimes alternate days, but rarely twice in the ſame day. About the increaſe, a coldneſs ſometimes came on, the forerunner of critical ſweats; or purpura, which often preceded death. Sometimes the real ſymptoms of pleuritis, or peripneumonia, were joined. The blood then drawn, was covered with an inflammatory cruſt; in other caſes, for the moſt part, it was florid, without the cruſt.

The diſeaſe attacked the old rather than the young, and was more fatal to thoſe of forty and upwards, and alſo, to thoſe formerly hypochondriac and melancholic, than to others. The bad ſymptoms were, tremors of the joints; convulſions in the muſcles of the face; urine covered with a pellicle of a clear, red, or bright yellow colour, or black; fæces bilious,

and then becoming white and very fetid, the changes not anſwering to the fits or remiſſions of the fever; a florid face ſuddenly becoming pale; eyes full of tears; convulſions; running from the noſe; profuſe ſweat of the head, neck, and ſhoulders, after black urine; grinding of the teeth; a ſtrong pulſation at the heart; the collectio flocculorum; ſlight hæmorrhagy at the noſe; convulſions; paralyſis of the tongue; a change into peripneumonia, or the ſymptoms of pleuritis coming on early; perpetual watchfulneſs; comatoſe ſtate; and ſleep lethargic, eſpecially if, from the beginning, forgetfulneſs was united with delirium.

The favourable ſymptoms were, a copious flow of blood through the anus, by the urinary paſſages, or noſtrils, and even by the lungs and mouth; dreams which the patient could remember; delirium eaſed by natural ſleep; critical ſweats, after the increaſe of the fever; the deafneſs gradually diminiſhing, and ceaſing; a decreaſe of the diſeaſe, like that of any other acute fever.

The marks of death were, a ſhort time of a comatoſe ſtate after furious delirium, and perpetual

perpetual watchfulneſs; ſleeps becoming heavier, with weak febrile motions, a ſonorous deglutition, and ejection of food, with cough.

The author gives the more ſevere ſtate of the diſeaſe, the name of Phrenitis from contagion; the milder, Paraphrenitis from contagion. He thinks that the proximate cauſe of phrenitis, commonly reckoned an inflammation of the brain and its membranes, was not the only morbid affection which here occurred, but that it is conjoined with, or immediately follows, an inflammation, not only of the diaphragm, but likewiſe of the abdominal viſcera. This he holds to be the proximate cauſe of the paraphrenitis, the brain being then drawn in by ſympathy. He places the prediſpoſing cauſes in thoſe things that diſturb the circulation of the fluids in the abdomen or brain; the occaſional cauſes, in the non-naturals, and in contagion.

The cure, in the beginning, is for the moſt part the ſame with that of acute fevers: copious drinks, impregnated with the vegetable and mineral acids; free air; blood-letting,

and, if neceſſary, a repetition of it; a looſening of the belly, either by clyſters or purgatives, of which rhubarb, either alone, or, where a ſuſpicion of worms is preſent, conjoined with ſome mercurius dulcis, were, in his opinion, the beſt. After this, ipecacuanha, with or without tartar emetic, is to be exhibited at intervals, if neceſſary. Nitre, ſal ammoniac, the milk and flowers of ſulphur, and the ſulphur auratum antimonii, are alſo recommended. Diarrhœa, he tells us, is never to be checked in the beginning. Bliſters are to be ſoon applied to the neck and thighs, and kept long open. On an increaſe of the diſeaſe, repeated blood-letting and vomiting may be had recourſe to, but with great prudence. In place of the latter, kermes mineral, in ſmall doſes, has been frequently employed with the greateſt advantage. Camphor, internally, and in antiphlogiſtic clyſters, are ſerviceable; and acid wines, chiefly Rheniſh. Peruvian bark, joined with antiphlogiſtics and antiſeptics, or with gentle preparations of rhubarb, are often of uſe. The real intermittent fever ſometimes following, is to be driven off by bark, which

is alſo to be given to convaleſcents, long after the diſeaſe ſeems to have terminated, joined at the ſame time with martial powders, to drive off hypochondriaſis and melancholic delirium.

V.

Obſervations des Fievres inflammatoires, bilieuſes, dont trois ont été ſuivies de Pemphigus, qui paru en être la Criſe. *Par* M. Salabert, *Médecin, Chirurgien-major des Chaſſeurs Royaux de Provence à Antibes.* Vide *Journal de Médecine, Janvier* 1790. 12mo, Paris.

IT is of conſequence, without doubt, to the improvement of the healing art, that every one of its adminiſtrators, who is attentive in his practice, accurate in his obſervations, exact and ſtrictly true when he deſcribes new and unuſual occurrences which he has obſerved in his practice, ſhould ſpeedily communicate to the public thoſe peculiar to himſelf, when they may aſſiſt in illuſtrating the practice, in directing the diagnoſis, or determining the prognoſis. It is to fulfil as much as lies in his power his duty, that

that Mr Salabert publiſhes the following obſervations.

Intermittent, remittent, cattarhal and ſaburral fevers, have reigned during the Spring of the year 1789, in that part of Provence which the author inhabits. All thoſe which he has treated in the military hoſpital at Antibes, yielded to the uſe of emetics more or leſs repeated. Cathartics ſeemed of little ſervice, and were only employed as auxiliary means. Febrifuges, and above all the Cinchona, have not been of uſe in theſe diſeaſes; but the ſecond emetic, given at the beginning of the cold fit, has in general made it give way, before its fourth or fifth return.

The heat of the Summer, though moderate for the climate, had occaſioned ſome changes in the character and progreſs of the diſeaſes which happened then: continued fevers had ſucceeded remittent, and the inflammatory and bilious diatheſes had prevailed in all the diſeaſes in the months of July and Auguſt. The period of the irritation was the longeſt: for the moſt part it comprehended the firſt ſeven days. During this firſt ſtage, all the ſymptoms had a violence and intenſity really alarming.

The pulſe was hard, full, and quick; reſpiration loud and frequent; the mouth dry, foul, and bitter. The deſire of vomiting announced the approach of the diſeaſe, and did not ceaſe till after copious evacuations of bile, aſſiſted by emetics; the head was pained; a ringing in the ears continually diſturbed the ſick perſon much; the ſkin was dry, hot, and parched; all the ſecretions were either ſtopped, or conſiderably diminiſhed. The ſmall quantity of urine which the patient voided was paſſed with difficulty, and with a ſenſation of heat almoſt painful. This violent ſtage was but moderately calmed by two bleedings; uſually the firſt day, or the night following. Emetics, which it was neceſſary to repeat often, brought on, by increaſing the evacuations, a ſenſible amendment. The uſe of cathartics, given the ſecond day of the firſt ſtage, ſeemed to operate quickly, with evident advantage. It was by the aid of theſe active, but ſtrongly indicated means, that the ſecond ſtage was brought on. It was by the diminution of all the ſymptoms, that the period of criſis was announced; its operation was commonly performed without troubleſome or diſagreeable

conſequences.

conſequences. The reaction of the vital powers on the morbific matter, operated in a ſatisfactory manner: the ſolids were now in that ſtate in which one would chooſe to fix them, that which ſeemed moſt favourable to their action on the fluids, which were always more or leſs contaminated by the diſeaſe.

The method of cure made uſe of, in this ſecond ſtage, conſiſted principally in plentiful dilution with whey, acidulated by cream of tartar, to every pint of which half a grain of tartar emetic had been added, as a means of aſſiſting the diaphoreſis, and of combating the ſpaſms of the ſmaller veſſels. The duration of this ſecond period was uſually four days.

The paroxyſm of the eleventh day, which was commonly more violent than thoſe of the four preceding, without, however, preſenting any alarming ſymptom, brought along with its remiſſion, the firſt critical evacuations: a white ſediment in urine; a ſlow tumefaction of the belly, with one or more yellow evacuations, decidedly critical, commonly ſtopped the fever, together with free perſpiration, which was always ſalutary. Such were the means by which an end to the diſeaſe was obtained. This laſt

ſtage

ſtage ſeldom exceeded ſix days in duration. The only medicines then employed, were ſome palliatives, and theſe with great circumſpection, leſt they ſhould turn aſide, from the route it had choſen, the progreſs of the criſis.

Theſe were the moſt general phænomena in eleven patients, who, during the months of July and Auguſt, were treated in the hoſpital for the inflammatory bilious fever which reigned during theſe months. Mr Salabert thought it neceſſary to draw up haſtily this memoir of the prevailing epidemic, that its appearances might be better compared with the diſeaſe which is the ſubject of the following obſervations; a diſeaſe which, in ſeveral particulars, ſeems to agree with it entirely, but which differs from it, however, in its rare and unexpected criſis.

OBSERVATION I.

DULAC, a corporal of the Royal Chaſſeurs, in Provence, about twenty-ſix years of age, of a ſtrong, robuſt, ſanguine temperament, and dark

dark complexion, was admitted into the military hoſpital at Antibes, on the 20th of July, at four in the afternoon. His diſeaſe had commenced that morning at ten o'clock, by a violent but ſhort fit of ſhivering, with an inſupportable deſire of vomiting, which a copious diſcharge of green and bitter bile had not relieved. The hot fit that followed it, was very ſevere, with a parched ſkin. The headach which accompanied it was of ſuch a nature, that the admiſſion of light, or the leaſt motion, made him cry violently. His thirſt was unquenchable, and warm drinks renewed his deſire of vomiting. His reſpiration was loud, and breath ſultry; his pulſe quick and hard; and there was obſervable in different places, ſome ſlight twitchings of the tendons. He had a frequent deſire to make urine, without being able to paſs more than a very few hot and limpid drops. A firſt bleeding, of nine ounces and upwards, occaſioned no change in the diſeaſe. At the time of that evacuation, he vomited a great deal of bile, and the blood drawn was covered with a thick, tough, buffy coat. The bleeding was repeated in the night, and followed by the ſame vomiting as

the

the firſt ; it was to the extent of eight ounces or nine, and ſhewed the ſame inflammatory ſymptoms. He had for ſome hours an interrupted and fatiguing ſleep.

As the irritation ſeemed only ſlightly alleviated, a third bleeding was ordered on the morning of the 21ſt. Taking advantage of the relaxed ſtate which followed it, an emetic was given in ſolution, which fully anſwered its intention, as it produced an abundant evacuation, and put a ſtop to a pain of the ſtomach, which had been preſent ſince the attack of the diſeaſe. An injection given at ten o'clock, did not operate. At two P. M. he was in the ſame ſtate as on the evening before, excepting the diminution of the inflammatory ſymptoms, which were only, however, moderately allayed ; the night was fatiguing by the want of ſleep, and deſire to vomit, which recurred. His drink, during all this time, was nitrated lemonade, which he took with pleaſure, and in great quantity.

On the 22d, he got a ſecond emetic. The advantages which had followed this method of treatment in theſe months, and the ſalutary effect of emetics, employed ſtill leſs as evacu-

ants

ants than as the ſure means of putting a ſtop to the ſpaſms of the ſmall veſſels, and in particular, to re-eſtabliſh the action of thoſe of the ſkin, were ſufficient indications of the propriety of its uſe. The evacuation was ſome time after as abundant, and of the ſame nature, as on the evening before. It was alſo followed by ſome looſeneſs; but the ſkin remained parched and dry; the exacerbation was neither retarded nor diminiſhed; and the urine was no higher coloured than before.

On the 23d, the ſame phænomena appeared at the ſame hour, that is to ſay, the remiſſion which took place at four A. M. was diſturbed by the exacerbation at eleven A. M. An injection given at night, with the nitrated lemonade, which the patient ſtill reliſhed, were the only remedies employed that day.

The bound ſtate of the belly, and the foulneſs of the tongue, were indications for the uſe of a cathartic, which was adminſtered on the 24th, at four A. M., and produced conſiderable evacuation: copious and bilious fæces rendered the belly lax, the urine was ſufficiently high coloured, the internal heat and thirſt were ſenſibly diminiſhed; but the exacerbation

tion returned at the ſame hour as before, and with it the ſame ſymptoms ſhewed themſelves. Their intenſity ſeemed but little, if at all, diminiſhed; the ſkin, in particular, was in the ſame ſtate. An injection, which was given at night, and had not operated, was perhaps the cauſe of his agitations and troubled ſleep that night.

The 25th and 26th preſented no favourable change in the ſymptoms. The paroxyſm and its intermiſſion occurred at the uſual time, and all the ſymptoms, except thoſe which depended on the plenitude and foulneſs of the primæ viæ, preſerved their intenſity. The temperant powders of Stahl, given every five hours, to the extent of five grains, and ſome injections, were the medicines employed. They ſeemed to change but little the alarming ſtate of the patient.

On the 27th and 28th, whey, acidulated by cream of tartar, and rendered diaphoretic by the emetic tartar, was ſubſtituted to the nitrated lemonade. This change produced ſome ſtools; and, according to the obſervation of Dr Cullen, it acted more particularly on the ſkin, which it rendered ſoft and moiſt.

The

The fit of the 29th was violent, and the night preceding it reſtleſs. The ſymptoms had acquired an alarming increaſe; the abdomen was hard, ſlightly ſwelled, and painful to the touch; the want of ſleep, and anxiety, were preſent the whole night. The fit ended at four in the morning, in a viſcous, fetid ſweat. A ſenſe of heat and pain in the belly and foreſide of the thighs, occaſioned an examination of theſe parts, when three blotches of a deep red colour were obſerved, and of the ſize of the hand, on each of which were a dozen of elevated white points, ſomewhat like the miliary eruption. This obſervation took place at five o'clock. At ſeven, they obſerved on each of the blotches twelve or fifteen round white and confluent veſicles, of the ſize of a pea. The ſkin on which they were ſituated, was of a pale red colour, and the pain and heat had ſenſibly diminiſhed. The patient was in other reſpects eaſier. During the day, the veſicles ſwelled, and became tranſparent; ſome of them burſt that night, and diſcharged a yellowiſh ſerum; the others opened on the ſecond and third days. The largeſt were of the ſize of half an almond: the places on which they

they were ſituated, had the appearance of a bliſter, and were treated in the ſame manner. Every place that had been affected with inflammation, excoriated, and healed eaſily.

On the 30th, the fit was entirely wanting; the patient had abundant ſweating during the night, and in the morning ſeveral critical ſtools; the urine depoſited a ſediment; the fever ceaſed; and the convaleſcence might be dated from the third day of the appearance of the pemphigus.

OBSERVATION II.

CAISON, a ſoldier of the ſame regiment, was admitted into the hoſpital three days after the former. He had been his bedfellow at the barracks, and was placed near him in the hoſpital. His diſeaſe, from the beginning, had a ſtriking reſemblance to that of his comrade. Their age and temperament were ſimilar. The treatment was the ſame, as well as the event; this difference only excepted, that the inflamed blotches, on which the pemphigus appeared, were more numerous, and larger, and that the

the exanthematous veſicles were ſeparate, and not more than two or three on every inflamed blotch; but theſe, to the number of twelve, occupied particularly the abdomen, and top of the thighs, and each puſtule was a good deal larger. The diſeaſe terminated as happily as the former; the critical evacuations were the ſame; and the convaleſcence was neither long nor difficult. This was not, however, the caſe with the ſubject of the following obſervation.

Observation III.

Lombard, a ſoldier in the ſame corps, was admitted into the hoſpital on the 10th of Auguſt. His diſeaſe preſented itſelf in ſuch a manner, as to leave no doubt of its nature; and conſtant attention paid to the two former patients, were the grounds of diagnoſis. His diſeaſe purſued, in the commencement, the ſame track with the other two. The ſame method of cure was employed, but with this difference, that he was only bled once, and

the emetic was not repeated, as the bound ſtate of his belly rather indicated cathartics.

On the 19th, when, if the diſeaſe had undergone the ſame changes as the two others, the criſis ſhould have happened, his ſtrength was conſiderably impaired, and he was much fatigued in the night-time, by a watery looſeneſs, accompanied with a pain of the abdomen. The ſkin, which ſhould have been ſoft and moiſt at the end of this fit, remained dry and parched, a ſharp heat attacked the left ſide of the œſophagus, and the tongue was dry and foul: a ſingle veſicle, of the ſize of a nut, had appeared on the xiphoid cartilage, and the ſkin around had not changed its colour. The patient became low, and his pulſe miſerable. It was eaſy to diſcover, in this ſtate of affairs, that impotent re-action had taken place of the expected criſis, and that diſeaſe being thrown upon the inteſtines, had cauſed the diarrhœa, and other alarming phænomena, which had continued ſince the morning of the 19th.

Bliſters appeared ſtrongly indicated, and were ordered to be applied on the night of the 20th, on the internal and upper part of the thighs.

thighs. Camphor, to the extent of half a dram, was given to allay the ſubſultus tendinum. The bliſters raiſed the pulſe, and augmented his ſtrength, and the ſubſultus yielded to the third injection of camphor; but the diarrhœa and irritation of the inteſtinal canal ſtill remained. The ſucceſsful employment which M. de Laſſonne the elder, had made of milk, in the diarrhœa which remains after ſmall-pox and meaſles, ſuggeſted the uſe of milk, mixed with a decoction of nitrous plants. This method ſucceeded perfectly; the diarrhœa was ſtopped; the pain and heat of the abdomen, no longer troubled the patient; the fit was leſs ſevere, and the night was good; and the patient for the firſt time ſince the commencement of the diſeaſe, ſpent five hours in tranquil ſleep.

On the 22d, the fever had entirely ceaſed; the belly was eaſy and natural; the œſophagus was not painful; all this day he had only two ſtools, and the fæces were yellow and hard; the bliſters ſuppurated conſiderably; the fever, however, returned in a ſlight degree at night.

To conclude, ſays the author, we ſhall obſerve, that the convaleſcence was long and difficult; that there were ſeveral relapſes of the fever; and that the patient was not entirely recovered, until the tranſpiration and ſweating re-appeared. The puſtules ſuppurated long, and, during the convaleſcence, it was neceſſary to have recourſe ſeveral times to purgatives. The ſenſibility of the alimentary canal remained until the perfect recovery of the patient, on the 10th of September.

To theſe ſingular hiſtories, Mr Salabert ſubjoins ſome theoretical conſiderations.

The diſeaſe we have juſt deſcribed, ſays he, differs eſſentially from all the exanthematous continued diſeaſes. The veſicular fever, according to Sauvages, is idiopathic; and none of the five varieties deſcribed by him, preſent any thing analogous to that we have obſerved. The ſame may be ſaid of the varieties of Dr Cullen, who has only copied the French noſologiſt. The 147th and 149th obſervations of Car. Piſon, give us no more information. All theſe

theſe authors conſider the pemphigus as an acute, inflammatory, exanthematous fever, in which the puſtules are idiopathic, and preſent themſelves on the ſecond or third day; whereas, in the above mentioned, they appeared at the end of the diſeaſe, and when they both might and ought to be reckoned a ſalutary criſis.

But, is this termination, ſays our author, peculiar to a diſeaſe which in many reſpects reſembled the inflammatory bilious fever which was prevalent at that time, ſufficient to conſtitute a new genus, or ought it only to be conſidered a variety of the latter? This is a difficulty ſtill unreſolved.

The author, beſides, propoſes to examine if this diſeaſe be contagious; and at what time, and in what manner it is ſo. Theſe queſtions are connected with ſome, more general, which he propoſes to make the ſubject of a memoir, in which he will inquire, If contagion be as varied as ſome authors ſuppoſe? Of what nature are the contagious miaſmata? What circumſtances favour their action? If contagion can exiſt without pyrexia? and, If all pyrexias

be not contagious, although in very different proportions? Theſe facts, he thinks, are of ſuch a nature as to throw ſome light on a ſubject which is much connected with the practice of the healing art.

VI.

VI.

An Account of the Tabaſheer; in a Letter from Patrick Ruſſell, *M. D. F. R. S. to Sir* Joſeph Banks, *Bart. P. R. S.* Vide *Philoſophical Tranſactions, Vol. LXXX.* 4to, London.

A Subſtance, known under the name of Tabaſheer, is a medicine in high repute in many parts of India. And although there may, perhaps, be reaſon for ſuſpecting, that its ſuppoſed virtues are entirely founded on popular credulity, yet we preſume that an account of it cannot be unacceptable to our readers.

Dr Ruſſell thinks that this drug was firſt introduced to the notice of the Weſtern world through the works of the Arabian phyſicians, all of whom mention it as an important article in their materia medica. It ſeems likewiſe to be of much more general uſe in Turkey, than

the part of India where Dr Ruſſell was ſituated, Vizagapatam.

To the Arabs and Turks, it is known by the name of *Tabaſheer* only; in the Gentoo language, it is called *Vedroo-paloo*, bamboo-milk; in the Malabar, *Mungel-upoo*, ſalt of bamboo; and in the Warriar, *Vedroo-car-pooram*, bamboo camphor.

The dangerous error of rendering it Spodium, in the Latin tranſlations of the Arabian writers, has been long ago expoſed by Don Garzia Dall' Horto.

Moſt of the Arabian writers agree in the Tabaſheer being a production of the Indian reed, more eſpecially of ſuch as were ſet on fire by the accidental friction of the reeds. Several mountaineers, however, with whom the Doctor converſed on this ſubject, affirmed, that this was not the only tree ſubject to accidental ignition by friction; but added, that they never looked for tabaſheer in the half-burnt fragments of the bamboo, though it might ſometimes be found there as well as in others.

The genuine tabaſheer is undoubtedly a production of the Arundo Bambos of Linnæus,

the

the Ily of the hortus Malabaricus, and the Arundo Indica arborea maxima, cortice ſpinoſo, of Herman; and it is no leſs certain that fire is not a neceſſary agent in its production.

It is found in thoſe bamboos, vulgarly called the females, which are diſtinguiſhed from the males by the ſize of their cavities; but whether they be different trees, is yet uncertain.

A peculiar rattling perceived on ſhaking the bamboo, is, by the natives, conſidered as an indication of its containing tabaſheer, although, on ſplitting ſome reeds, it was found but ſo inconſiderable, and adhering ſo cloſely to the ſides of the cavity, that no rattling was perceived.

In the month of July 1788, thirty-ſeven green bamboos, of five or ſix joints each, were ſplit, and accurately examined by Dr Ruſſell. In nine of them, was no veſtige of this drug; in the other twenty-eight, there was ſome found, in one, two, or three joints of each. The quantity in all was inconſiderable, the produce of the whole twenty-eight not much exceeding two drams. The empty joints were ſometimes contiguous, ſometimes interrupted.

rupted. The drug conſiſts of very diſſimilar particles, when firſt taken out of the bamboo. Thoſe reckoned of the firſt quality, were of a bluiſh, white colour, reſembling ſmall fragments of ſhells, harder than the others, but might be eaſily crumbled between the fingers into a gritty powder, and had a ſlight ſaline teſtaceous taſte; and, when not looſe with the others, were found adhering indiſcriminately to the ſeptum at either end, but never to the ſides near the middle of the joint. The others were of a cineritious colour, rough on the ſurface, and more friable; and, intermixed with theſe, were ſome larger, light, ſpongy particles, ſomewhat reſembling pumice-ſtones.

From the inconſiderable quantity procured from twenty-eight reeds, Dr Ruſſell thinks it probable, that though not abſolutely confined to certain regions, it may be produced in greater abundance in ſome ſoils than in others; but that, in all regions where the bamboo grows favourably, ſome proportion of the drug will be found, however much it may vary in quantity or quality.

He then proceeds to make a few obſervations on the juice of the recent bamboo, ſuppoſed

poſed to form tabaſheer. The exiſtence of this fluid in the bamboo, is known by ſhaking it; and very few joints, in proportion, contain any. The fluid is always tranſparent, but varied in conſiſtence. When thicker, it was likewiſe whiter, and had more of a ſlight ſaline ſubaſtringent taſte. After evaporation, the reſiduum had a pretty ſtrong ſaline taſte, with leſs aſtringency.

The recent green bamboos, which, upon ſhaking, ſeemed to contain water in the cavity, loſt this appearance after ſtanding a few days; and, when ſplit, ſometimes, as if the whole had eſcaped, no fluid was found in the cavity, the interior ſurface being only diſcoloured, as if by recent moiſture: but, generally, ſome of the fluid remained in a mucilaginous ſtate, in the lower part of the joint. Dr Ruſſell alſo remarks, that ſmall worms were ſometimes found in the ſame joints with the water, and that theſe ſurvived ſeveral hours, ſwimming about in the water after its extraction.

In the latter end of October 1788, a green bamboo, of five joints, was brought to Dr Ruſſell, which appeared to contain both water and

and tabaſheer. After he had kept it three days, the ſound of the water, upon ſhaking the reed, could hardly be perceived, and, on the fifth day, it was entirely imperceptible. Upon ſplitting this bamboo, about half a dram of the fluid, now thickened into a mucilage, was found at the bottom of the upper joint. The ſecond joint contained ſome perfect tabaſheer, looſe in the cavity. The third joint was empty, excepting a few particles of tabaſheer, which adhered to the ſides near the bottom. The fourth joint contained, at the bottom, above a dram of a browniſh pulpy ſubſtance, adherent to the ſeptum. The laſt joint, in like manner, contained half a dram of a ſubſtance, thicker and harder in conſiſtence, and nearly of the colour of white wax.

This ſpecimen, Dr Ruſſell thinks, exhibited at one view the progreſs of the tabaſheer through its ſeveral ſtages. The ſound diſtinctly perceived in the firſt joint, on the 23d of October, was produced, he imagines, by the water in a fluid ſtate. On the 31ſt, this water having become thicker, the ſound, upon ſhaking, was very obſcure. On the 2d of November,

November, no ſound was perceptible, and when the reed was ſplit, the water was found reduced to a mucilage. The fourth and fifth joints contained the drug in a more advanced ſtate. In the one of theſe, it was thicker than a mucilage, and of a browniſh colour; in the other, more of the fluid part having evaporated, the colour was whiter, and it wanted but little of the conſiſtence of the perfect tabaſheer found in the ſecond joint.

This letter from Dr Ruſſell to the Royal Society, was accompanied with ſeveral ſpecimens of the tabaſheer from different parts, particularly ſome of the prime ſort from Hydrabad; which differed from the others not only in its ſuperior whiteneſs, but in being much harder than even the pureſt particles in his own ſpecimens, which he was certain had undergone no adulteration, and alſo in being much heavier, and in no degree friable to the finger.

Dr Ruſſell adds a poſtſcript to this letter, written after his return to Britain, and dated at Weymouth, July 16. 1790. From this it appears, that, upon ſplitting ſome of the reeds ſent to the Royal Society, at one of their meetings,

meetings, the tabaſheer, which theſe contained, was found to agree in all reſpects with the ſpecimens ſent from India. He farther tells us, that ſeveral ſpecimens are under chemical trial, and that the reſult of theſe will probably hereafter be communicated to the Society.

In the paper before us, Dr Ruſſell has ſaid nothing with reſpect to the reputed medical virtues of this article; nor has he offered any conjecture with regard to the cauſe of the effuſion of this fluid in certain joints only of the bamboo. From a future paper, it is to be hoped, that we may derive ſome information with regard to both theſe particulars. We would only at preſent remark, that as Dr Ruſſell has found, in ſome inſtances, ſmall living worms in the ſame joints with the water, it ſeems to us not improbable, that the effuſion is, in every caſe, the effect of animals wounding the bamboo, and depoſiting in it their ova, or the rudiments of their young. At leaſt, an inquiry into this ſubject may perhaps be thought not unworthy of the attention of ſome future philoſopher, who may have

have opportunities of examining the reeds containing tabaſheer in its different ſtages.

A ſpecimen of the tabaſheer has been ſent to Dr Duncan, by his ingenious and worthy friend Dr Simmons of London. We hope, therefore, that we may hereafter be able to communicate to our readers ſome trials made with this ſubſtance at Edinburgh. But in addition to Dr Ruſſell's account, we ſhall here preſent our readers with an extract of a letter to Dr Simmons, from Mr J. L. Williams, an ingenious ſurgeon in the ſervice of the Honourable Eaſt India Company in Bengal, dated at Benares, October 23. 1790, and inſerted in the firſt volume of Medical Facts and Obſervations, lately publiſhed at London.

" I have lately procured from the hills in " this neighbourhood, a drug, ſpecimens of " which I ſhall ſend by the ſhips of this ſea- " ſon, for your inſpection. It is called in Per- " ſian, Tabaſheer; in Hindoo, Buns-lochum, " or ſalt of the bamboo. It has a peculiar " quality of ſtrongly adhering to the tongue, " and is held in great eſteem by the natives, " in a variety of diſeaſes. But I have not yet

" been

" been able to aſcertain its virtues from my " own experience."

In a Perſian work, the Tofut ul-Monein of Mahomed Monein Hoſeiny, I have found the following obſervations on this ſubſtance, and its ſuppoſed medicinal properties.

" The tabaſheer (ſays this writer) is procu- " red from the cavity of the Indian reed, or " bamboo; and it is ſaid, that when, from the " violence of the winds, fire takes hold of " theſe reed thickets, the tabaſheer is formed " of the joints of the reeds, which are ſepara- " ted from the aſhes thereof. The beſt kind " is of a white colour, and of a roundiſh " ſhape, having to the palate a ſmall degree of " a rough and biting taſte. There is a facti- " tious kind made of burnt bones; but this " has but a ſmall degree of bitterneſs to the " taſte, and poſſeſſes no ſtrength.

" The tabaſheer will not diſſolve in water. " It puts a ſtop to bilious vomitings, and to " the bloody flux. It is alſo of ſervice in caſes " of palpitation of the heart, in faintings, and " for ſtrengthening thoſe members of the bo- " dy that are weakened by heat.

" It

"It is uſeful for the piles, and for acute "and burning fevers, and for puſtules in the "mouth; and, given with oxymel, it is of ſer- "vice againſt reſtleſſneſs, melancholy, and "hypochondriacal affections. The habitual "internal uſe of it is prejudicial to the virile "powers. It is alſo ſaid to be prejudicial to "the lungs. The correctives are, the gum of "the pine, and honey: the doſe is to the "weight of two d'herems or ſeven maſhás."

After giving this extract, Mr Williams adds, "With the ſpecimens of this drug, I ſhall al- "ſo ſend you a piece of the bamboo unopen- "ed, with ſome of the ſalt or ſugar in it; "from which you will be convinced that the "tabaſheer is not found by the burning of the "bamboo, as the author juſt now quoted, and "others, have ſuppoſed."

It is not very probable, that the tabaſheer has all the virtues here attributed to it: but if it really poſſeſs any of them to a remarkable degree, it may be conſidered as no unimportant addition to our materia medica.

VII.

An Account of the Nardus Indica, or Spikenard. By Gilbert Blane, *M. D. F. R. S.* Vide *Philoſophical Tranſactions, Vol. LXXX.* 4to, London.

DR BLANE begins this paper, by regreting that the records of antiquity afford but imperfect deſcriptions of natural objects. Of moſt of them, little more is ſaid than merely giving their names. But as language is local and fluctuating, the fruits of the ingenuity and labour of one age, have been thus, in a great meaſure, loſt to another.

He has been led, he obſerves, to theſe reflections, by an account ſent him, ſome time ago, by his brother in India, of the Spikenard, or Nardus Indica, a name familiar in the works of the ancients, but not hitherto ſatisfactorily aſcertained. His brother, in a letter dated Lucknow, December 1786, ſays, that "travel-

"ling

" ling with the Nabob Viſier, upon one of his " hunting excurſions towards the northern " mountains, I was ſurpriſed one day, after " croſſing the river Rapty, about twenty miles " from the foot of the hills, to perceive the " air perfumed with an aromatic ſmell; and, " upon aſking the cauſe, I was told it pro- " ceeded from the roots of the graſs, bruiſed, " or trodden out of ground, by the feet of the " elephants and horſes of the Nabob's retinue. " The country was wild and uncultivated, and " this was the common graſs which covered " the ſurface of it, growing in large tufts, " cloſe to each other, very rank, and in gene- " ral from three to four feet high. As it was " the winter ſeaſon, none of it was in flower; " indeed the greateſt part of it had been burnt " down on the road we went, that it might " be no impediment to the Nabob's encamp- " ments.

" I collected a quantity of the roots to be " dried for uſe, and carefully dug up ſome of " it to be planted in my garden at Lucknow. " It there throve exceedingly, and, in the " rainy ſeaſon, ſhot up ſpikes, five or ſix feet " high. Accompanying this, I ſend you a

" drawing of the plant in flower, and of the " dried roots, in which the natural appearance " is tolerably preſerved.

" It is called by the natives, Terankus, which " means literally, in the Hindoo language, " Fever reſtrainer, from the virtues they at- " tribute to it in that diſeaſe. They infuſe " about a dram of it in half a pint of warm " water, with a ſmall quantity of black pepper. " This ſerves for one doſe, and is repeated " three times a day. It is eſteemed a power- " ful medicine in all kinds of fevers, whether " continued or intermittent. I have not made " any trial of it myſelf, but ſhall certainly take " the firſt opportunity of doing ſo.

" The whole plant has a ſtrong aromatic " odour; but both the ſmell and virtues re- " ſide principally in the huſky roots, which, " in chewing, have a bitter, warm, pungent " taſte, accompanied with ſome degree of that " kind of glow in the mouth which carda- " mums occaſion."

Beſides the drawing, a dried ſpecimen has been ſent, in ſuch good preſervation, as to enable Sir Joſeph Banks to aſcertain it to be

a ſpecies of Andropogon, and different from any Nardus.

There is great reaſon, however, Dr Blane tells us, to think that it is the true Nardus Indica of the ancients.

For, *firſt*, The circumſtance in the account above recited, of its being diſcovered in an unfrequented country, by the odour it exhaled when trod upon by the feet of horſes and elephants, correſponds, in a ſtriking manner, with an occurrence related by Arrian, in his hiſtory of the expedition of Alexander into India, lib. vi. cap. 12.

Secondly, It was evident, that it was a plant of the order of gramina, from the term Ariſta, which was appropriated by them to the fructification of grains and graſſes, being ſo often applied to it. The epithet Pubentis, ſometimes given it, ſeems to point out, that it belonged to the genus Andropogon. The deſcription of the Nardus Indica, by Pliny, does not indeed correſpond with the ſpecimen; for he ſays it is frutex, radice pingui et craſſa, whereas it has ſmall fibrous roots: but as Italy is far diſtant from the native country of this plant, it is reaſonable to ſuppoſe, that others,

more eaſily procurable, uſed to be ſubſtituted for it. Indeed there were nine different plants by which it could be imitated and adulterated. It is probable, the Nardus of Pliny, was a plant growing in the countries on the Euphrates, or in Syria, where the great emporiums of the Eaſtern and Weſtern commerce were ſituated; and Dioſcorides mentions a Nardus Syriaca, as a ſpecies different from the Indica; and both he and Galen, by way of fixing more preciſely the country of its growth, call it Nardus Gangites.

Thirdly, Garcias Ab Horto, a Portugueſe, has given a figure of the roots, or rather lower parts of the ſtalks, which correſponds with the ſpecimen ſent to Dr Blane; and he ſays expreſsly, that there is but one ſpecies of Nardus known in India. It is not to be met with in the hortus Malabaricus. The Schænanthus of Rumphius does not agree with it, being only a palm in height; but he mentions having ſeen a dried ſpecimen brought from Mackran, of which the leaves were almoſt five feet high.

Fourthly, The ſenſible qualities of this are ſuperior to what commonly paſſes for it in the ſhops, being poſſeſſed both of more fragrancy and

and pungency, which ſeems to account for the preference given to it by the ancients.

With regard to the virtues of this plant, it was anciently, Dr Blane obſerves, much eſteemed as an article of luxury, as well as a medicine; and likewiſe, as its virtues depend on a principle not ſo volatile as eſſential oil, this would be a great recommendation of it to the ancients, who were unacquainted with the art of diſtillation. The fragrance, and aromatic warmth, depend on a fixed principle, like that of cardamums, ginger, and ſome other ſpices. Dr Blane tried to extract the virtues of the Nardus, by boiling water, by maceration in wine and proof ſpirits; but it yielded them ſparingly, and with difficulty, to all theſe menſtrua.

It had a high character among the ancients, as a remedy both externally and internally, and is one of the ingredients in all antidotes, from thoſe of Hippocrates to the officinals, which have kept their ground to modern times, under the names of Mithridate and Venice Treacle. Celſus and Galen recommend it both externally and internally, in pains of the ſtomach and bowels. It would appear, that

the natives of India conſider it as an efficacious remedy in fevers; and its ſenſible qualities promiſe virtues ſimilar to thoſe ſimples now in uſe among us in ſuch caſes. Beſides a ſtrong aromatic flavour, it poſſeſſes a pungency of taſte, little inferior to the ſerpentaria, and much more conſiderable than the contrayerva. Dr Blane concludes with obſerving, that it is mentioned in a work attributed to Galen, that a medicine compoſed of this, and ſome other aromatics, was found uſeful in long protracted fevers, which are the caſes in which medicines of this claſs are employed in modern practice.

VIII.

VIII.

An Account of a Child with a Double Head. In a Letter from Everard Home, *Eſquire, F. R. S. to* John Hunter, *Eſquire, F. R. S.* Vide *Philoſophical Tranſactions, Vol. LXXX.* 4to, London.

AS the deſcription of this curious occurrence in human nature, does not eaſily admit of being abridged, we ſhall here preſent it to our readers in Mr Home's own words to Mr Hunter, leaving out only a few paſſages, not particularly connected with the deſcription.

DEAR SIR,

I feel a particular ſatisfaction in having been enabled to add to your invaluable collection, the very uncommon double ſkull of a monſtrous child, born in the Eaſt Indies, which attracted the attention of all the curious in Calcutta, where it was ſhown alive.

The

The following account of the child, when ſix months old, I was favoured with, from Sir Joſeph Banks, who, from the handwriting, and other circumſtances, believes it was written by the late Colonel Pierce. I have, however, been leſs ſolicitous to aſcertain the author, as the obſervations contained in this account agree ſo entirely with the remarks that were afterwards made, and with the appearances of the ſkull, that they require no name being annexed to them, in confirmation of their having been made with accuracy and fidelity.

The child was born in May 1783, of poor parents. The mother was thirty years old, and named Nooki; the father was called Hannai, a farmer at Mandalgent, near Bardawan in Bengal, and aged thirty-five.

At the time of the child's birth, the woman who acted as midwife, terrified at the ſtrange appearance of the double head, endeavoured to deſtroy the infant, by throwing it on the fire, where it lay a ſufficient time to have one of its eyes and ears conſiderably burnt.

The body of the child was naturally formed, but the head appeared double, there being, beſides

beſides the proper head of the child, another of the ſame ſize, and, to appearance, almoſt equally perfect, attached to its upper part. This upper head was inverted, ſo that they ſeemed to be two ſeparate heads united together, by a firm adheſion between their crowns, but without any indentation at their union, there being a ſmooth continued ſurface from the one to the other. The face of the upper head was not over that of the lower, but had an oblique poſition, the centre of it being immediately above the right eye.

When the child was ſix months old, both of the heads were covered with black hair, nearly in the ſame quantity. At this period, the ſkulls ſeemed to have been completely oſſified, except a ſmall ſpace between the oſſa frontis of the upper one, like a fontanel.

Obſervations on the Superior or Inverted Head.

No pulſation could be felt in the ſituation of the temporal arteries, but the ſuperficial veins were very evident.

The neck was about two inches long, and the upper part of it terminated in a rounded, ſoft tumor, like a ſmall peach.

One

One of the eyes had been conſiderably hurt by the fire; the other appeared perfect, having its full quantity of motion: but the eyelids were not thrown into motion by any thing ſuddenly approaching the eye, nor was the iris at theſe times in the leaſt affected; but when ſuddenly expoſed to a ſtrong light, it contracted, though not ſo much as it uſually does.

The eyes did not correſpond in motion with thoſe of the lower head, but appeared often to be open when the child was aſleep, and ſhut when it was awake.

The external ears were very imperfect, being only looſe folds of ſkin, and one of them mutilated by having been burnt. There did not appear to be any paſſage leading into the bone which contains the organ of hearing.

The lower jaw was rather ſmaller than it naturally ſhould be, but capable of motion. The tongue was ſmall, flat, and adhered firmly to the lower jaw, except for about half an inch at the tip, which was looſe. The gums, in both jaws, had the natural appearance; but

no

no teeth were to be ſeen, either in this head or the other.

The internal ſurfaces of the noſe and mouth were lubricated by the natural ſecretions, a conſiderable quantity of mucus and ſaliva, being occaſionally diſcharged from them.

The muſcles of the face were evidently poſſeſſed of the powers of action, and the whole head had a good deal of ſenſibility. When the mother's nipple was applied to the mouth, the lips attempted to ſuck.

The natural head had nothing uncommon in its appearance, the eyes were attentive to objects, and the mouth ſucked vigorouſly.

The parents of the child were poor, and carried it about the ſtreets of Calcutta as a curioſity, to be ſeen for money; and, to prevent its being expoſed to the populace, they kept it conſtantly covered up, which was conſidered as the cauſe of its being emaciated and unhealthy.

The attention of the curious was naturally attracted by ſo uncommon a ſpecies of deformity; and Mr Stark, who reſided in Calcutta during this period, paid particular attention to the

the appearances of the double head, and endeavoured to aſcertain the mode in which the two ſkulls were united, as well as to diſcover the ſympathies which exiſted between the two brains. Upon his return to England, finding that I was in poſſeſſion of the ſkull, and propoſed drawing up an account of the child, he very obligingly favoured me with the following particulars, and has likewiſe allowed me to have a ſketch taken from a very exact painting, made under his inſpection, from the child, while alive, by Mr Smith, a portrait painter, then in India.

At the time when Mr Stark ſaw the child, it muſt have been nearly two years old, as it was ſome months before its death, which I have every reaſon to believe happened in the year 1785. At this period, the appearances differed in many reſpects from thoſe taken notice of when it was only ſix months old.

The burnt ear had ſo much recovered itſelf, as only to have loſt about one fourth part of the looſe pendulous flap. The openings leading from the external ear appeared as diſtinct as in thoſe of the other head.

The

The ſkin ſurrounding the injured eye, which was on the ſame ſide with the mutilated ear, was in a ſlight degree affected, and the external canthus much contracted; but the eye itſelf was perfect.

The eyelids of the ſuperior head were never completely ſhut, remaining a little open even when the child was aſleep, and the eyeballs moved at random. When the child was rouſed, the eyes of both heads moved at the ſame time; but thoſe of the ſuperior head did not ſeem to be directed to the ſame object, but wandered in different directions. Tears flowed from the eyes of the ſuperior head almoſt conſtantly, but never from thoſe of the other, except when crying.

The termination of the upper neck was very irregular, a good deal reſembling the cicatrix of an old ſore.

The ſuperior head ſeemed to ſympathiſe with the child in moſt of its natural actions, although, when the ſkin of the ſuperior head was pinched, the child ſeemed to feel little or no pain, at leaſt not in the ſame proportion as was felt from a ſimilar violence being committed on its own head or body.

Some

Some months after theſe obſervations were made, it died, from the bite of a Cobra de capelo, and was buried near the banks of the Boopnorain river. It was afterwards dug up by Mr Dent, on whoſe grounds the parents at that time lived.

My friend Captain Buchanan, when at Bengal, reſiding at Mr Dent's houſe, was much ſtruck with the appearance of the ſkull, and expreſſed a wiſh that he might be allowed to bring it to Europe, and preſent it to me. His requeſt was no ſooner communicated, than it was complied with, that gentleman having too much liberality to heſitate a moment in ſending ſo rare a curioſity to Europe. I ſhould do both theſe gentlemen injuſtice, were I not to attribute their readineſs, on the preſent occaſion, to oblige me, in a great meaſure to their knowing that the ſkull would be depoſited in your collection, which muſt now be conſidered more as a national and public repoſitory, than a private cabinet.

The two ſkulls which compoſe this monſtrous head, appear to be nearly of the ſame ſize, and equally complete in their oſſification, except

except a ſmall ſpace at the upper edge of the oſſa frontis of the ſuperior ſkull, ſimilar to a fontanel. The mode in which the two are united is curious, as no portion of bone is added or diminiſhed for that purpoſe; but the frontal and parietal bones of each ſkull, inſtead of being bent inwards, ſo as to form the top of the head, are continued on, and, from the oblique poſition of the heads, the bones of the one, paſs a little way into the natural ſutures of the other, forming a zig-zag line, or circular ſuture, uniting them together.

The two ſkulls ſeem to be almoſt equally perfect at their union; but the ſuperior ſkull, as it recedes from the other, becomes more imperfect and deficient in many of its parts.

The meatus auditorius, in the temporal bone, is altogether wanting.

The baſis of the ſkull is imperfect in ſeveral reſpects, particularly in ſuch parts as are to connect the ſkull with a body. The foramen magnum occipitale, is a ſmall irregular hole, very inſufficient to give paſſage to a me-

dulla ſpinalis. Round its margin are no condyles with articulating ſurfaces, as there were no vertebræ of the neck to be attached to it. The foramen lacerum in baſe cranii, is only to be ſeen on one ſide, and, even there, too ſmall for the jugular vein to have paſſed through.

The oſſa palati are deficient at their poſterior part; the lower jaw is too ſmall for the upper; and the condyle, and coronoid proceſs, of one ſide, are wholly wanting.

In moſt of the other reſpects, the two ſkulls are alike. The number of teeth in both is the ſame, and is ſixteen.

From an examination of the internal ſtructure of the double ſkull, the two brains have certainly been incloſed in one bony caſe, there being no ſeptum of bone between them. How far they were entirely diſtinct, and ſurrounded by their proper membranes, cannot now be aſcertained; but from the ſympathies which were taken notice of by Mr Stark, between the two heads, I ſhould be inclined to believe, that there was a more intimate connection, than ſimply by means of nerves, and, therefore, that the

the ſubſtance of the brains was continued into one another.

Had the child lived to a more advanced age, and given men of obſervation opportunities of attending to the effects of this double brain, its influence on the intellectual principle muſt have afforded a curious and uſeful ſource of inquiry: but, unfortunately, the child lived only long enough to complete the oſſification of the ſkull, ſo as to retain its ſhape, by which means we have been enabled to aſcertain and regiſter the fact, without having enjoyed the ſatisfaction that would have reſulted from an examination of the brain itſelf, and a more mature inveſtigation of the effects it would have produced.

Yours, &c.

E. Home.

To this letter of Mr Home's in the Philoſophical Tranſactions, are ſubjoined two copperplates. In the firſt, the child is repreſented as it appeared at the age of twenty months. This plate is copied from a picture in the poſſeſſion of Mr Stark. In the ſecond plate,

there is a repreſentation of the double head, exactly half the natural ſize; and likewiſe an exact repreſentation of the double ſkull, which is now in Mr Hunter's collection, upon the ſame ſcale as the former.

IX.

IX.

Experiments and Obſervations on the Matter of Cancer, and on the aerial Fluids extricated from Animal Subſtances by Diſtillation and Putrefaction; together with ſome Remarks on Sulphureous Hepatic Air. By Adair Crawford, *M. D. F. R. S.* Vide *Philoſophical Tranſactions, Vol. LXXX.* 4to, London.

DR CRAWFORD begins this ingenious paper with remarking, that there are ſeveral varieties in the colour and conſiſtence of the matter diſcharged by cancerous ulcers. It varies from a pale aſh colour to a reddiſh brown, or even almoſt to a black. Its conſiſtence is generally thin, although in cancerous, as well as other malignant ulcers, we frequently meet with a white ſordes adhering to the ſurface of the ſore, and which appears ſcarcely miſcible with water. The appearance

of the diſcharge is often varied by remedies both external and internal, but in general the cancerous ulcer is, in its advanced ſtage, accompanied with a peculiar odour, more highly fetid and offenſive than that which is emitted by other malignant ulcers. Cancerous matter occaſions, by its abſorption, ſcirrhous tumours of the lymphatic glands, contiguous to the parts affected, and gradually corrodes the branches of the larger blood-veſſels, which have a peculiar power of reſiſting the action of other purulent diſcharges.

Dr Crawford has found, by experiments, that, on the addition of a ſolution of vegetable fixed alkali to cancerous matter, no ſenſible change was produced; but when the vitriolic acid was employed, the colour of the matter was uniformly deepened towards a brown, and an effervescence took place. The preſence of an alkali in cancerous matter, was likewiſe detected by ſyrup of violets.

The aerial fluid which was diſengaged by the vitriolic acid, appeared, from its odour, to have a nearer reſemblance to hepatic, than to any other ſpecies of air. As it ſeemed, from its ſenſible qualities, to be a very active, and probably

probably deleterious principle, Dr Crawford endeavoured to inquire more particularly into its nature. He has found that it has many properties of hepatic air, viz. ſolubility in water, and the precipitation which is occaſioned from a ſolution of it in water, by the addition of nitrated ſilver. He therefore thinks it may be not improperly termed animal hepatic air. He found, from many experiments, that the odour of cancerous matter was increaſed by the addition of the vitriolic, and entirely deſtroyed by the concentrated nitrous and dephlogiſticated muriatic acids. He concludes, that the alkali contained in cancerous matter is the volatile alkali. It ſeems probable, that the alkali was united to the aerial fluid, with which the matter of cancer is impregnated, ſince the ſmell was increaſed on the addition of the vitriolic acid.

Dr Crawford then proceeds to treat of the air extricated from cancerous matter, and other animal ſubſtances, by diſtillation. He here diſcovers, that the principle on which the peculiar odour of cancerous matter depends, is very volatile; that this volatile ſubſtance,

which perhaps is the active principle in the matter of cancer, is not changed by ſimple expoſure to heat, but is a permanently elaſtic fluid; that the aerial fluids which are extricated from freſh as well as putrid animal ſubſtances, by diſtillation, have nearly the ſame properties with that which is diſengaged by a ſimilar proceſs from the matter of cancer. Each of them appears to conſiſt of two diſtinct fluids, one of which is ſoluble, the other inſoluble, in water. The part that is inſoluble, burns with a lambent flame, and has all the characters of heavy inflammable air; whereas the ſoluble part reſembles the fluid which is extricated from cancerous matter by the vitriolic acid. It has a fetid odour, decompoſes nitrated ſilver, combines with cauſtic volatile alkali, and poſſeſſes many of the properties of common hepatic air.

There are ſeveral particulars, however, in which common and animal hepatic air differ materially from each other. Although both be fetid, yet their odours are not exactly ſimilar. When common hepatic air is decompoſed by the concentrated, nitrous, or dephlogiſticated muriatic acid, ſulphur is ſeparated; but

but when animal hepatic air is decompoſed by theſe acids, a white flaky matter is diſengaged, which is evidently animal, becauſe it becomes black by the addition of concentrated vitriolic acid; nor is ſulphur ſeparated during the combuſtion of animal hepatic, with atmoſpheric air.

His experiments likewiſe prove, that the ſoluble part of the air diſengaged by heat from the lean of animal ſubſtances, conſiſts of three diſtinct fluids, viz. one fourth fixed air, and the remaining three fourths animal hepatic, mixed with a ſmall proportion of alkaline air. He alſo diſcovered, that theſe three airs, ſlowly combining together, formed an oily empyreumatic ſubſtance, which was found at the bottom of the jar in which they were received. One meaſure of the air received in the end of the diſtillation of the lean of freſh mutton, being previouſly well agitated with water till the ſoluble part was abſorbed, was mixed, over quickſilver, with one meaſure of pure air; and an electric ſhock being paſſed through it, a violent exploſion took place; and now the volume of air was diminiſhed nearly one fourth. The reſidue being agitated with water, ſix

tenths

tenths were abſorbed, which was found to be fixed air. Of the inſoluble remainder, five parts being mixed with five of nitrous air, a diminution of three parts took place; one fifth of the inſoluble reſiduum was therefore pure air. It is therefore, he thinks, manifeſt, that, by the combuſtion of the pure and inflammable air in the foregoing trial, fixed air was produced; the phlogiſticated air found in the reſidue, being that which was contained in the pure air previous to the inflammation.

One meaſure of the ſame air, uſed in the experiment laſt mentioned, not agitated with water, was mixed, over quickſilver, with one meaſure and an half of pure air, and fired by the electric ſhock. The portion of the tube occupied by the mixture, before the deflagration, was 1 inch and $\frac{15}{100}$, and, after it, an inch and one tenth. Being agitated with lime water, one third was abſorbed. A portion of the inſoluble reſidue being expoſed to a lighted taper, burned with a faint blue flame.

From the foregoing trial it was evident, that $1\frac{1}{2}$ parts of pure air, were inſufficient to ſaturate one of the animal air, that had not been previouſly agitated in water.

The

The experiment was repeated as follows: Two parts of pure, being mixed with one of inflammable air, occupied an eighth of an inch. The mixture being fired by an electric ſhock, the reſidue ſtood at a little leſs than .5: when this reſidue was agitated with lime water, it was almoſt wholly abſorbed. On trial, nearly one half of the animal air uſed in this experiment, was found to be ſoluble in water.

Hence it appears, that the quantity of pure air required to ſaturate the inſoluble part of animal air, is ſomewhat leſs than that required to ſaturate the compound fluid, which had not been previouſly agitated with water; and as the latter conſiſts almoſt entirely of heavy inflammable, animal hepatic, and fixed air, the laſt of which is already ſaturated with pure air, it is manifeſt, that the above mentioned difference muſt depend on the animal hepatic air: whence it follows, that this air muſt contain a large portion of the inflammable principle. From the quantity of fixed air produced in the laſt experiment, there is the ſtrongeſt reaſon to believe, the baſis of heavy inflammable air forms one of the conſtituent parts of animal hepatic air.

When

When equal parts of pure and animal air were burnt together, a conſiderable increaſe of bulk almoſt invariably took place; and when the proportion of animal was to pure air as 21 to 15, the bulk of the mixture was increaſed one half.

The following experiments were made to learn the cauſe of this increaſe of bulk.

Three meaſures of animal, were mixed with two parts of pure air, and ſeveral ſtrong electrical ſhocks made to paſs through the mixture; but it would not take fire. Half a meaſure of pure air was then added; and the mixture being fired, was increaſed from .9 of an inch, to 1 inch and .3. Three meaſures of this reſiduary air were then mixed with three of pure air, and fired by an electric ſhock. The bulk of the mixture was then reduced from 1 inch to .56. From theſe facts it ſeems probable, that animal hepatic air conſiſts of a combination of heavy and light inflammable air; and that, when it is fired with a quantity of pure air not ſufficient to ſaturate it, a portion of the animal air is reſolved into its elementary principles, in conſequence of which its bulk is increaſed.

It

It appeared, that when alkaline and pure air were immediately mixed together, and a ſmall ſhock was made to paſs through them, they would not take fire; but when three or four ſhocks were previouſly paſſed through the alkaline air, and the latter mixed with an equal quantity of pure air, they exploded with great violence. The reſidue, when cooled, was reduced to half the original bulk of the mixture. Of this reſidue, one ſixth was undecompoſed alkaline air; the remainder was phlogiſticated air.

Dr Crawford then proceeds to examine the products which reſult from the combuſtion of ſulphureous hepatic, with pure air. The hepatic air employed, was procured by adding marine acid to an artificial combination of ſulphur and iron.

Three meaſures of this air were mixed in a ſtrong glaſs tube over mercury, with four of pure air, and fired by an electric ſhock: the airs were reduced to one fourth of their original bulk. The reſidue, when filtered, occaſioned a copious precipitation from vitriolated ſilver and muriated barytes; but when added to lime water, no ſenſible precipitation was produced.

produced. Although this laſt fact does not prove, that no fixed air exiſted in the reſidue, becauſe the marine acid, which it evidently contained, would diſſolve the calcareous earth of the lime water; yet, as a great diminution reſulted from the combuſtion, and as it appeared from chemical teſts, that the reſidue was principally compoſed of marine and vitriolic acid airs, it is evident, that if any fixed air was produced, its quantity muſt have been very inconſiderable.

Hence it appears, that when ſulphureous hepatic, and pure air, are fired together in the above proportions, the products are, fixed vitriolic, with a ſmall quantity of volatile vitriolic, and marine acids, in an aerial form. The reſidue, which the diſtilled water did not abſorb, was the phlogiſticated air, that exiſted in the pure air previouſly to the combination.

From ſubſequent trials it appeared, that when hepatic and pure air were fired in equal bulks, the reſidue had a ſtrong odour of volatile vitriolic acid, and moreover contained a ſmall proportion of undecompoſed hepatic air. Theſe facts ſeem to prove, that the converſion of ſulphur into volatile, or fixed vitriolic acid, depends

depends upon the quantity of pure air with which it is ſupplied. The marine acid air found in this experiment, did not appear to form one of the conſtituent principles of the hepatic air, but was merely diffuſed through it.

One meaſure of hepatic air was mixed, over mercury, with about ſix meaſures of atmoſpherical air, and fired by the electric ſhock. A copious precipitation of ſulphur took place. The remaining air was then agitated with diſtilled water; the latter was filtered, and muriated barytes added, which produced a white precipitate, not diſſoluble in a large quantity of water. Hence it appears, that when ſulphureous hepatic air is burnt with atmoſpheric air, a part of the ſulphur is changed into vitriolic acid, and the reſt is precipitated; but when it is burnt with a ſufficient quantity of pure air, the ſulphur is wholly converted into vitriolic acid.

The quantity of pure air required to ſaturate ſulphureous hepatic air, does not ſeem to correſpond with the ſuppoſition, that the laſt of theſe fluids conſiſts of ſulphur diſſolved in light inflammable air; for ſulphur requires only

ly 1.43 times its weight of pure air; but light inflammable air, at leaſt ſix times its weight of pure air to ſaturate it. The ſpecific gravity of hepatic, is nearly equal to that of pure air. If, therefore, one ſixth of the weight of hepatic, conſiſted of light inflammable air, that fluid would require, for its ſaturation, 2.26 times its weight of pure air; but the quantity of pure air neceſſary to ſaturate one meaſure of hepatic air, is only 1.33 meaſures. It is, therefore, a more probable inference, that hepatic air is ſulphur which has acquired an aerial form, by the application of heat. This Dr Crawford has alſo confirmed by experiment.

One meaſure of impure hepatic air, containing a conſiderable proportion of fixed air, was introduced into a ſlender graduated tube, over mercury, and was mixed with an equal bulk of alkaline air. As ſoon as theſe airs came into contact with each other, a white cloud was produced; the mercury roſe gradually in the tube; and, at the end of ſix hours, the air that remained occupied only the ſpace of a meaſure and a third. The ſurface of the mercury within the tube, firſt became black, and part of it afterwards aſſumed a red colour.

Mr

Mr Cruckſhank, who aſſiſted in moſt of theſe experiments, found, that the red and black powders, which were formed by the action of the hepatic air on the ſurface of the mercury, were Æthiops mineral and cinnabar. In the courſe of the experiment, an oleaginous ſubſtance was depoſited upon the interior ſurface of the tube, at firſt of a yellowiſh colour, but gradually aſſuming a deeper caſt, till at length it became green. It was very fetid, and appeared to have a near reſemblance to an animal oil which had become green by putrefaction. It was, however, ſoluble in water; and the odour of the ſolution was increaſed by the vitriolic, and deſtroyed by the concentrated nitrous, and dephlogiſticated muriatic acids.

Dr Crawford next treats of the air extricated from animal ſubſtances by putrefaction.

In the beginning of July 1789, about two ounces of veal, ſlightly putrid, were introduced into a large phial, filled with diſtilled water, and inverted over a quantity of the ſame fluid. At the end of three days, a few bubbles of air had appeared at the bottom of the phial, the water acquired a light brown

colour, and emitted a fetid ſmell. From a diſſolution of part of the veal, at the end of ſeven days, it acquired the conſiſtence of a thin mucus. From nitrated ſilver, it produced a dark brown; and from lime water, an aſh-coloured precipitate. Concentrated nitrous acid deſtroyed the ſmell, produced a ſlight efferveſcence, and diſengaged a yellow flaky matter. At the end of ſeven weeks, two drams and one ſixth of air were collected in the phial; it was fetid, and, when agitated with water, ſix tenths were abſorbed. The reſidue extinguiſhed flame.

On the 28th of July 1789, two drams and 24 grains of the lean of freſh veal was introduced into a narrow jar, filled with, and inverted over mercury. On the 13th of September, a little more than two ounces, of a very fetid air, was diſengaged. When agitated with diſtilled water, it was reduced to one ſixteenth of its original bulk: the reſidue extinguiſhed flame. Diſtilled water, ſaturated with it, produced, upon the addition of nitrated ſilver, a dark-coloured precipitate; and an aſh-coloured cloud, when mixed with lime water. The veal had not loſt its firm texture; its ſmell was putrid, but not very offenſive.

From

From theſe experiments it appears, that the aerial fluids extricated from the muſcular fibres of animals, conſiſt of fixed, and animal hepatic, mixed with a very ſmall proportion of phlogiſticated air.

Dr Crawford then proceeds to treat of the effects produced by expoſing freſh animal ſubſtances to atmoſpherical, hepatic, and pure air.

Two drams of veal were expoſed, over mercury, in as ſimilar ſituations as poſſible; the one to atmoſpherical, and the other to hepatic air. In three days, that in contact with the common air, had not altered its colour or conſiſtence, but ſmelled a little putrid. The colour of the fatty parts expoſed to the hepatic air, was changed to a dark green; the muſcular fibres were cracked and ſhrivelled on the ſurface, as if they had been ſeared with a red-hot iron; and the whole had acquired a ſoft conſiſtence.

Similar trials were made with two pieces of freſh veal; the one was expoſed, over mercury, to common air; the other, to air extricated from putrid veal, by diſtillation. The latter, in three days, had become green round the edges, and was interſperſed with green ſpots: the ſurface of the mercury had acquired a

brown colour: it continued nearly in this ſtate for ſix weeks. The air, at the laſt, was very fetid, occaſioned a copious precipitate in lime water, was highly inflammable, and burned with a blue lambent flame.

On the contrary, that expoſed to the common air, did not ſo ſoon loſe its fibrous texture, nor ſo ſpeedily acquire a dark colour; but the progreſs of its putrefaction did not appear to ſtop ſo ſoon. It advanced ſlowly; and at the end of ſix weeks, a conſiderable part of the muſcular fibres had run down to a brown liquid. The air in which it was placed now occaſioned a copious precipitate in lime water; and the brown liquid was found to be impregnated with animal hepatic, and fixed air.

In the month of December 1789, equal portions of pure and common air, were introduced into equal jars, over mercury, in each of which was placed about two drams of freſh beef. At the end of a week, that expoſed to the pure air had become highly putrid, while that in the common air had undergone very little change.

The facts which have been aſcertained by the preceding experiments, appear to lead to the

the following concluſions reſpecting the proceſs of putrefaction in the lean of animal ſubſtances.

The muſcular fibres contain fixed and phlogiſticated air, the inflammable principle, in the ſtate of heavy and light inflammable air; and a ſubſtance which, by means of heat or putrefaction, is capable of being converted into animal hepatic air. When the muſcular fibre, after the death of the animal, is expoſed to the pure air of the atmoſphere, the latter, by a ſuperior attraction, combining with the heavy inflammable air, produces fixed air, and at the ſame time furniſhes the quantity of heat neceſſary to the formation of animal hepatic air. The coheſion of the fibre being thus deſtroyed, the fixed, as well as the light inflammable and phlogiſticated air, which enters into its compoſition, are diſengaged; and the two latter fluids, uniting with each other, produce the volatile alkali.

The alterations which take place in putrefaction, are in moſt reſpects ſimilar to thoſe which ariſe from deſtructive diſtillation. Dr Crawford has found, that the fetid odour of animal hepatic air is deſtroyed, by ſuffering it

to remain ſome weeks in contact with pure air, or by agitating it with vinegar, or concentrated vitriolic acid. But this effect is moſt ſpeedily produced, by the concentrated nitrous, or dephlogiſticated marine acid, both of which are known to abound with pure air. It is therefore probable, that this alteration depends upon an union between the pure air of theſe fluids, and the animal hepatic air, or ſome of its conſtituent parts.

It appears, that the animal fibres, in cancerous and other malignant ulcers, undergo nearly the ſame changes which are produced in them by putrefaction or deſtructive diſtillation. The purulent matter, prepared for the purpoſes of healing the ulcer, is, in ſuch caſes, mixed with animal hepatic air, and volatile alkali. The compound, formed by an union of theſe ſubſtances, which may perhaps not improperly be called hepatiſed ammonia, has been found to decompoſe metallic ſalts, and act upon metals. This accounts for the change produced in metallic ſalts, when applied to malignant ulcers.

From the foregoing experiments it likewiſe appears, that animal hepatic air imparts to the

fat

fat of animals, recently killed, a green colour, renders the muſcular fibres ſoft and flaccid, and increaſes the tendency to putrefaction. It is, therefore, ſeptic; and hence it is probable, that the hepatiſed ammonia found in the matter diſcharged by the open cancer, produces deleterious effects. For although the miſchief in cancerous ulcers ſeems principally to depend upon a morbid action of the veſſels, whence the unhealthy ſtate of the matter diſcharged by ſuch ulcers is ſuppoſed to derive its origin; yet, from the corroſion of the coats of the larger blood-veſſels, and the obſtructions in the contiguous glands, there can be little doubt that this matter aggravates the diſeaſe. The experiments recited above, appear to prove, that the hepatiſed ammonia is the ingredient which communicates to the cancerous matter its putrid ſmell, its greater thinneſs, and, in a word, all the peculiar properties by which it differs from healthy pus.

From theſe conſiderations it was inferred, that a medicine which would decompoſe the hepatiſed ammonia, and deſtroy the fetor of the animal hepatic air, without, at the ſame time, increaſing the morbid action of the veſ-

ſels, would be productive of ſalutary effects. The fetor of hepatic air is not deſtroyed by the nitrous acid, unleſs when highly concentrated; and in this ſtate, it ſpeedily corrodes animal ſubſtances. But the fetor of hepatic air quickly diſappears, when it is mixed with the dephlogiſticated marine acid, even when ſo much diluted with water, as to render it a very mild application. Dr Crawford has found, that this acid, mixed with thrice its weight of water, gives but little pain, when applied to ulcers that are not very irritable; and in ſeveral caſes of cancer, it appeared to correct the fetor, and produce a thicker and more healthy pus. It is proper, however, to remark, that other caſes occurred, in which it did not ſeem to be attended with the ſame ſalutary effects. Some cancerous ulcers, indeed, are ſo extremely irritable, that applications which are at all of a ſtimulating nature cannot be ventured on; and hence, if the obſervations which he has made on the efficacy of this acid, as an external application, ſhould be confirmed by future experience, it muſt be left to the judgment of the ſurgeon to determine

both

both the degree of its dilution, and the caſes in which it may be employed with advantage.

The dephlogiſticated muriatic acid has the power of deſtroying the colour, ſmell, and perhaps the taſte, of the greater part of animal and vegetable ſubſtances. It corrects the fetor of putrid fleſh; and Dr Crawford has found, that, when poured in ſufficient quantity upon hemlock and opium, theſe narcotics ſpeedily loſe their ſenſible qualities. As it appears, therefore, to poſſeſs the power of correcting the vegetable, and probably animal, poiſons, it ſeemed not unlikely that it might be uſeful as an internal medicine. Conceiving that its exhibition would be perfectly ſafe, Dr Crawford took twenty drops of it diluted with water. A train of diſagreeable ſymptoms, however, ſoon afterwards occurred; but which were manifeſtly produced by a ſmall portion of lead contained in the manganeſe which was made uſe of in the preparation of the acid. If, therefore, this acid ſhould hereafter be employed as an internal medicine, it would be neceſſary to prepare it by means of manganeſe that has been previouſly ſeparated, by a chemical

mical proceſs, from the lead, and other metals with which it is uſually contaminated.

Whether the theory here propoſed, with regard to the peculiar nature of cancerous virus, be well founded or not, yet the candid reader will readily allow that it is ſupported with much ingenuity, and deſerves ſerious attention. And we cannot conclude our obſervations on this ſubject, without expreſſing a ſincere wiſh, that the practice which this theory has ſuggeſted, may be confirmed by experience.

X.

X.

Obſervationes de Epidemica Conſtitutione anni 1789, *in Civico Noſocomio Viennenſi. Auctore* Aloyſio Careno, *Phil. et Med. Doct.* 12mo, Viennæ.

THIS treatiſe contains a ſhort deſcription of a prevailing catarrh, and of a putrid bilious fever. Dr Carenus obſerves, that, to a very warm and dry Summer, in the year 1788, producing frequently very profuſe ſweats, there ſucceeded a blowing autumn, which uſhered in very early cold in the winter. Theſe ſudden changes of temperature, in our author's opinion, were the cauſe of a very epidemic catarrh, ſo fatal, that, without diſtinction of age or ſex, it carried off near one half of thoſe, among the lower claſs, who were afflicted with it. As Dr Carenus, at that time, practiſed in the hoſpital, he had many opportunities of obſerving it very particularly. And the deaths of

of many of his medical aſſociates, who fell victims to the diſeaſe, did not deter him from paying ſuch attention to the courſe of this affection, as he thought neceſſary for communicating a faithful deſcription of it to the public.

In the commencement of this affection, the patient complained of a ſlight pain, or rather ſenſe of weight, in the head. But it ſoon became more ſevere, when he was affected alſo with general laſſitude, roughneſs of the fauces, and ſome degree of hoarſeneſs. Theſe were attended with anorexia, and dry cough, ſometimes with, ſometimes without, fever. But when fever, at this period, took place, it was neither violent nor conſtant. The urine, at the commencement of the affection, was light-coloured; but, in the courſe of the diſeaſe, it became darker, depoſiting a furfuraceous ſediment.

Theſe ſymptoms were, in general, protracted to the third or fourth day; and, if proper treatment was employed, the diſeaſe had a favourable termination. But thoſe who paid little regard to them, ſoon fell into a more obſtinate

ſtinate and dangerous affection, than could have been expected from ſuch a commencement.

Thoſe who confined themſelves to bed from the commencement, and drank plentifully of diluent pectoral decoctions, had, for the moſt part, a concluſion of the diſeaſe, by a copious ſweat, on the third or fourth day. But if, at this time, proper means of cure were neglected, they became affected with diſtreſſing dry cough through the greater part of the night, with excruciating headach, and with ſevere pain in the ſternum, and in all the joints. At the ſame time, there in general took place a diſcharge of thin mucus from the noſe and mouth. But if the ſputum became thick, and there took place a copious diſcharge by ſweat, urine, or ſtool, all theſe ſevere ſymptoms ſoon vaniſhed. Not unfrequently, however, they paved the way for a phthiſis, proving ſpeedily fatal.

The cure conſiſted chiefly in employing copious emollient diluents, from the commencement, and in confining the patient to bed, or at leaſt to his bed-chamber. With the plethoric, it was ſometimes neceſſary to let blood; but the blood was not found to differ from the natural

natural appearance. It was alſo often neceſſary to keep the belly open by glyſters; and, when the cough was very diſtreſſing in the night, the pediluvium was frequently of great uſe.

In the more obſtinate caſes, it was neceſſary to carry the antiphlogiſtic plan ſtill farther; and blood-letting was neceſſary, to the third or fourth time.

Dr Carenus next deſcribes the putrid bilious fever, an affection, he tells us, of a ſtill more dangerous tendency. This diſeaſe, in the beginning, often put on the appearance of other affections, particularly of inflammatory or rheumatic fevers, and ſometimes even of intermittents. The greater part of the ſick who came into the hoſpital, complained of a pain in the head or loins, ſometimes fixed, ſometimes wandering. Others, in place of headach, were affected with vertigo, attended with cough, difficulty of breathing, and pains in the joints. To theſe ſucceeded the bilious ſymptoms, firſt diſtinguiſhed by a bitter taſte in the mouth, and uneaſineſs at ſtomach. Theſe ſymptoms were ſoon followed by nauſea, oppreſſion, and vomiting. There was a burning heat of the

ſkin;

ſkin; the pulſe, formerly hard and ſtrong, now became ſoft, but quick and weak; and the febrile ſymptoms, before ſlight, now became very diſtreſſing. The fever had ſometimes the type of a continued, ſometimes of a remittent; and, when it was of this latter kind, it was, for the moſt part, attended with an evening exacerbation. When the patients were directed to draw a full inſpiration, many of them complained of excruciating pain in the region of the ſtomach, and their ſtrength failed ſo much, that they could not ſtand erect even for a few minutes.

In the courſe of the diſeaſe, particularly about the ſeventh, ninth, or tenth day, ſubſultus tendinum often came on; the pulſe became weaker; there was a ſtill greater proſtration of ſtrength; and much delirium, with ſopor, were ſuperadded. In ſome, petechiæ appeared; in particular inſtances they were confined to the breaſt alone, in others extended over the whole body. With theſe ſymptoms, the urine was in general turbid; but ſometimes it depoſited a furfuraceous ſediment. Many were affected with hæmorrhage from the noſe; but it never afforded any relief, and the diſcharge,

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in general, rather reſembled the waſhings of fleſh, than blood. Involuntary ſtools, frequent and ſtrong ſubſultus tendinum, conſtant delirium, a black tongue, watery eyes, remarkable fetor from the body itſelf, oppreſſed breathing, and a tympanitic ſwelling of the belly, were indications, our author thinks, not only of the danger, but alſo of the putrid nature, of the diſeaſe.

This fever was highly contagious; and, after being introduced into the hoſpital, both nurſes and medical practitioners were affected with it; and, among theſe, three phyſicians, and two ſurgeons, of eminence, fell victims to the diſeaſe. Neither phthiſical patients, pregnant women, nor thoſe who came into the hoſpital with wounds, were exeemed from it; and it continued for about the ſpace of three months; during which period, of one hundred and thirty-five patients, ſeventy were affected with it. About the middle of March, this fever began to remit, and gave way to others of a more ſimple form. It deſerves to be remarked, that during the prevalence of this fever, from the beginning of December to the end of May, though diſeaſes of different kinds appeared,

appeared, there were ſcarcely any inſtances of real pleuriſies or peripneumonies, though theſe often appeared during that ſeaſon in former years.

Among the vulgar, in particular, this diſeaſe much more frequently affected young men, and thoſe about the middle periods of life, than infants, or old people.

Beſides the influence of contagion, many other cauſes were likewiſe aſſigned for this diſeaſe. Our author is of opinion, that the immoderate heat of the ſummer probably contributed not a little to this epidemic conſtitution; that the viſcera, debilitated by this means, could not properly exert their functions; and that thus a foundation was laid for gaſtric crudities, and bilious affections. He thinks alſo that, with the poor, alkaleſcent, indigeſtible animal food, as well as their ſmall, ill-aired, and moiſt habitations, may have had ſome influence.

The duration of this diſeaſe was irregular, ſometimes long, ſometimes ſhort. Copious bloodletting was in general obſerved either to protract the diſeaſe, or to produce a fatal termination. If the diſeaſe was neglected in the beginning,

medical aſſiſtance was but of little avail; but if properly treated from the commencement, it was both of ſhorter duration, and leſs dangerous. The longer the inflammatory ſymptoms were protracted, the more was the danger augmented; and from this circumſtance alone, blood-letting, performed in a ſparing manner, ſeemed ſometimes to have a good effect.

Thoſe who had been once or twice previouſly attacked with catarrh, were in very great danger; and if thoſe labouring under phthiſis were ſubjected to this fever, it was almoſt certainly fatal. If, on the ſixth or ſeventh day, the cloud in the urine ſubſided, and the ſkin became leſs dry, a favourable termination for the moſt part took place about the ninth, fourteenth, or twentieth day, either by urine, or ſweat. When a cough took place, if this ſymptom ſuffered an exacerbation about the ſixth, ſeventh, or eighth day, this was, for the moſt part, followed by a copious, thick, white ſputum, and an increaſe of other ſecretions, terminating in recovery. If clammy ſweats took place about the fifth or ſixth day, or later, without producing relief of the delirium,

rium, they were juſtly conſidered as a bad omen.

The occurrence of a petechial eruption, neither relieved nor aggravated the diſeaſe. But if, from irregularity in diet, convaleſcents were ſubjected to a relapſe, the danger was in general ſo great, that two out of three periſhed. There was, according to our author, no difference in the prognoſis, whether the diſeaſe evidently aroſe from contagion, or from any other cauſe, either known or unknown.

After theſe obſervations on the prognoſis, before proceeding to the cure, Dr Carenus relates the hiſtory and treatment of ſeveral caſes, with a view ſtill farther to illuſtrate the progreſs of this epidemic. Among theſe, he relates the caſe of Dr de Vigilliis, firſt phyſician to the hoſpital at the time when this epidemic began to prevail, and on whom Dr Carenus beſtows very high encomiums. From this hiſtory it appears, that in the courſe of his diſeaſe, with a weak and intermittent pulſe, livid petechiæ, and a black tongue, convulſions ſupervened; and the diſeaſe terminated fatally on the twelfth day, notwithſtanding the liberal

uſe of Peruvian bark, wine, ſerpentaria, and camphor.

After relating the hiſtories of ſome remarkable caſes, Dr Carenus concludes his treatiſe with ſome obſervations on a few particular remedies. With regard to blood-letting, he obſerves, that it is very ill adapted to bilious putrid fevers in general, although, in plethoric ſubjects, and when there is a complication with inflammatory affections, it is propoſed and recommended by almoſt every practitioner. Though the ſtate of the pulſe, difficulty of breathing, and pain in the ſide, continuing even for ſeveral days, ſeemed to require it, yet, when the character of the epidemic became manifeſt, it was found neceſſary to draw blood only with a very ſparing hand; for the ſtrength very ſoon failed, and the pulſe ſunk ſo faſt, that after taking two or three ounces, it became neceſſary to ſtop. Nor can reliance here be put on the appearance of the blood itſelf, unleſs in conjunction with other particulars. When neceſſity, however, requires, blood-letting is not to be neglected; but the perſon preſcribing it ſhould always be preſent, that he may judge of the proper extent of the diſcharge

diſcharge by the ſtate of the pulſe: and, in general, ſcarification and leeches are preferable to general blood-letting.

To the uſe of emetics, alſo, he obſerves, that ſeveral objections have been ſtarted. The appearances of inflammation which often took place, may, he thinks, be conſidered as contra-indications to the employment of them. Beſides, ſo long a period had in general elapſed before patients were brought to the hoſpital, that the bilious matter was not only depoſited in the alimentary canal, but even abſorbed. In addition to theſe circumſtances he alſo adds, that the tendency to hæmoptoe is very frequent at Vienna, which has been conſidered alſo as an objection to emetics; and upon the whole, it has, he obſerves, been thought, that all the purpoſes to be anſwered by them, may in general with more advantage be obtained by means of ſaline purgatives: but, notwithſtanding theſe objections, he is ſtill inclined to think, that they may be frequently employed with advantage. As to the proper time of exhibiting emetics, he obſerves, that a very long detail would be neceſſary fully to explain it: but he thinks, that when ſymptoms are urgent, they

may be employed at any period of the diſeaſe; at leaſt, he has found from experience, that they may be given with advantage, not only on the ſixth and ſeventh day of the diſeaſe, but on the tenth, and even later.

Of the benefit to be derived from Camphor, he entertains a very high opinion, provided it be given in due time. Sometimes the good effects of it are loſt, by its being exhibited too late. Though the fever has belonged to the ſimple bilious ones, yet where a ſtate of great debility takes place, he has ever given it with great advantage. Under its uſe, the ſtrength is, he obſerves, increaſed; the ſtomach becomes ſtronger; and nature, improved, is able to ſuſtain the concoction of the diſeaſe.

Authors, he obſerves, have differed much, both as to the time of exhibiting it, and the quantity to which it ought to be given; ſome adviſing it to the extent only of two or three grains, others of as many drams. In the hoſpital, his practice was to employ it to the extent of ſix, eight, or ten grains, and to repeat it according to circumſtances. It was ſometimes given mixed with ſugar; but, in general, he found it more eaſily taken under the form of mixture.

After

After ſome obſervations on critical days, the exiſtence of which he is diſpoſed to admit, he makes a few remarks on the Peruvian Bark. He ſeldom employed the bark till the eleventh day, leſt, by its means, a fomes, inimical to the body, ſhould have been retained; but, after ſufficient evacuation of this fomes ſeemed to have taken place, recourſe was immediately had to it. It was preſcribed under the form of decoction, with the addition of extract, to increaſe its powers. But the bark was ſhunned even late in the diſeaſe, when there was ſevere cough, and a ſtrong pulſe; leſt, from its employment, theſe ſymptoms ſhould be aggravated. Recourſe was had to emollients and demulcents, till the cough was diminiſhed.

XI.

A Diſſertation on Suſpended Reſpiration, from Drowning, Hanging, and Suffocation; in which is recommended, a Mode of Treatment different from any hitherto pointed out. By Edward Coleman, *Surgeon.* 8vo, London.

MR Coleman introduces his ſubject, by ſome obſervations on the ſolid and laſting gratification which ariſes from reſtoring life to thoſe who are apparently dead; and he points out the progreſs which has lately been made, in aſcertaining the principles on which this important end can beſt be accompliſhed. This progreſs is, he thinks, not a little to be attributed to the Humane Society of London. In the year 1787, that Society propoſed a prize-queſtion on the nature of the diſeaſes produced by Submerſion, Suſpenſion, and Noxious Airs.

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This queſtion gave riſe to the publication of two diſſertations of peculiar merit, thoſe of Dr Goodwyn and Mr Kite, both of which were honoured with prizes. But notwithſtanding the light thus thrown upon the ſubject, it was ſtill to be regreted, that many doubts and difficulties remained, and that the concluſions drawn from their obſervations and experiments, were in ſome particulars oppoſite, and even contradictory. Still farther, therefore, to elucidate this ſubject, the Humane Society propoſed, as a future queſtion, Whether Emetics, Veneſection, or Electricity, be proper in ſuſpended animation, and under what circumſtances? To this queſtion the following diſſertation is an anſwer; and the Society's medal was voted to the author of it.

Mr Coleman, however, who, as well as Dr Goodwyn, makes ſome objections to the term Suſpended Animation, as being leſs proper for conveying the idea intended, than Suſpended Reſpiration, did not confine his obſervations merely to anſwering the different particulars propoſed in the queſtion ſtated above. That we may be enabled to form a juſt eſtimate of the comparative efficacy and importance of the

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different means of cure pointed out, he thinks it firſt neceſſary, not only to deſcribe the phænomena of departing life, and the appearances on diſſection, but to view the ſubject alſo in a pathological light, and to conſider that peculiar condition of the animal, which forms the proximate cauſe of the diſeaſe.

In purſuance of this plan, he begins by deſcribing the common effects of Drowning. After deſcribing the ſucceſſive expirations, with fruitleſs efforts to inſpire, which take place during drowning, he obſerves, that on opening the cheſt, the two venæ cavæ, the right ſinus venoſus, auricle, ventricle, and pulmonary artery, are found loaded with blood; the left auricle nearly diſtended; the left ventricle about half; the aorta and its branches, containing a quantity of blood, which in all its appearances reſembles venous. The lungs are diſcovered in a ſtate of collapſe, containing a ſmall quantity of water in the form of froth, but very trifling when compared to the quantity of air expelled from the lungs during the act of drowning.

From this general account it appears, that the quantity of blood contained in the right

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ſide of the heart after drowning, was greater than that in the left. This led Mr Coleman to inſtitute ſome experiments, with the view of determining the exact proportion in which this takes place. And although, upon different trials, the quantities varied, yet it was found, that, at a medium, the proportions of the right ſide were to the left as $3\frac{2}{8}$ to $1\frac{6}{8}$. The lungs were uniformly in a collapſed ſtate.

After Hanging, as well as after Drowning, Mr Coleman found, that the lungs were collapſed, the right ſide of the heart overloaded with blood, the left auricle not quite diſtended, the left ventricle about half. The aorta, and its branches, contained blood, in quantity and colour, ſimilar to that from drowning. In caſes both of hanging and drowning, the periſtaltic motion of the inteſtines did not continue ſo long as the action of the heart, which, in ſome caſes, vibrated for an hour or two after reſpiration was ſuſpended, but, in other caſes, did not continue its vibration one tenth of that time.

When animals were immerſed in any air unfit for reſpiration, it has in general been ſuppoſed, that it was both taken into their lungs,

and again expelled; during which proceſs, a deleterious effect was produced in the ſyſtem, which terminated in death. But Mr Coleman tells us, that the lungs are found equally collapſed in thoſe animals deſtroyed by noxious air, as in thoſe which have been drowned. In both caſes, the firſt expiration is by no means ſufficient to exhauſt the lungs. The animal attempts to inſpire, but, from the improper element, the epiglottis cloſes. Air continues to be expelled, and new attempts are made to inſpire; but the trachea being irritated by the noxious air, little or none enters the lungs, and, after the laſt expiration, they admit no more. And accordingly, here alſo he found, by ſeveral experiments, that the quantity of air remaining in the lungs was very inconſiderable.

When animals were killed by noxious air, Mr Coleman found, that the irritability of the heart continued but little longer than the periſtaltic motion of the inteſtines, and that both ceaſed ſooner than in animals deſtroyed by hanging or drowning. In ſome animals deſtroyed by nitrous air, the heart ceaſed to contract, from its own ſtimulus, in leſs than four minutes.

minutes. From theſe circumſtances, Mr Coleman thinks himſelf warranted to conclude, that the air in which the animals were immerſed, contributed to deſtroy their irritability.

Mr Coleman next preſents us with ſome obſervations on the phyſiology of the lungs and heart. Here we find him a ſtrenuous advocate for the opinion of Dr Crawford, that the principle purpoſe of reſpiration is for the generation of heat; while with much ingenuity he oppoſes ſeveral of the tenets of Dr Goodwyn, particularly his aſſertion, that there is ſomething peculiar in florid blood, which alone is capable of exciting the left ſide of the heart to action.

In treating of this ſubject, he attempts to prove, by ſome experiments, and much ingenious reaſoning, that the principal advantage derived from reſpiration is, that of its being the ſource of animal heat; and that this heat, by being evolved in a ſenſible form, keeps up the irritability of the whole animal; that the blood contains more or leſs latent heat, in proportion to the degree of ſenſible warmth applied to the ſurface of the body; that as

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ſoon as the blood has undergone a change of colour in the lungs, it is rendered fit for ſupporting the heat and irritability of the animal; that heat is not only evolved from the blood, as it paſſes through the capillaries, but that the ſame proceſs continues through the whole circulation; and that the ſtimulus which excites the heart to act, is the ſame in all its cavities, and is principally diſtenſion.

After many ingenious remarks on the fœtal blood, which, though black, ſtimulates both ſides of the heart in that ſtate of the ſyſtem, he endeavours to ſhow, that, in ſuſpended reſpiration from drowning, &c. the right ſide of the heart contiues to act, after the left has ceaſed; that the reaſon of this difference is not, that the heart is incapable of being ſtimulated by black blood, but that it ariſes from this blood being eſſentially different in quality from that of the right; and that, from the greater ſenſible heat in the blood of the right auricle and ventricle, the irritability of theſe organs will of courſe be greater.

He contends alſo, that as the right ſide of the heart not only poſſeſſes more irritability than the left, but as the ſtimulus of diſtenſion

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is alſo more powerful at the right ſide than at the left, the former will be capable of continuing its action, when no effect is produced on the latter. He admits, however, that, as ſoon as the action of the left ſide of the heart is increaſed by the ſtimulus of florid blood, the right alſo acts more powerfully.

He obſerves, that electricity is capable of producing the action of the heart, when it has no effect on the exterior parts; and that as life ſtill actually exiſts, it would lead to the moſt pernicious conſequences to conclude that life was totally extinct, from no external action being produced by electricity.

Mr Coleman tells us, that electricity has been found incapable of producing external action, when the heat of the animal was much above the temperature of the ſurrounding medium. Hence he concludes, that animal heat, and evident irritability, are by no means in the ſame proportion. But although this be not the caſe, he ſtill thinks, that the greater the degree of heat is, the more will be the irritability of any particular animal. And he infers, that as the heart is to be conſidered as the origin of circulation, there is a probability

of

of recovery, as long as the heart can be made to act. He contends, that when the lungs are inflated ſoon after the laſt expiration, both ſides of the heart will immediately act; and that this probably proceeds from the irritability of the heart being ſtill ſo great, as to be ſtimulated to action by the mechanical irritation of the lungs; becauſe, in proportion to their expanſion, their ſurfaces muſt preſs upon the two ſides of the heart.

After theſe phyſiological obſervations reſpecting the action of the lungs and heart, Mr Coleman next proceeds to attempt to aſcertain the proximate cauſe of the diſeaſe in caſes of Drowning, Hanging, and Suffocation. After briefly mentioning the opinions of thoſe who attribute death, in ſuch caſes, either to the air contained in the lungs becoming highly phlogiſticated, and thus proving fatal; or to a congeſtion of blood formed in the heart and lungs; or, finally, to apoplexy; he proceeds to a more particular examination of the theories lately propoſed and ſupported by Dr Goodwyn and Mr Kite; and he endeavours to ſhow, that the ſuſpenſion of circulation neither proceeds, as the one has ſuppoſed, from the

the preſence of black blood in the left ſide of the heart; nor from the want of motion in the lungs, as is alleged by the other. And after thus endeavouring to refute the moſt faſhionable hypotheſes lately broached on this ſubject, he attempts to ſhew, that a collapſe of the pulmonary veſſels, producing a mechanical obſtruction to the paſſage of the blood, is the immediate cauſe of the ceſſation of circulation, and, conſequently, of death. He therefore concludes, that the proximate cauſe of the diſeaſe may be ſaid to conſiſt in a collapſe of the lungs, producing a collapſe of the pulmonary veſſels, with want of latent heat in the blood; and that both theſe muſt be removed, before the diſeaſe can be overcome.

Mr Coleman, after having ſtated his opinion reſpecting the proximate cauſe of the diſeaſe, which takes place in caſes of ſuſpended reſpiration, next proceeds to deliver his ſentiments reſpecting the effects of the different remedies mentioned in the queſtion propoſed by the Humane Society. Of each of theſe he treats ſeparately, beginning with the conſideration of Emetics. He conſiders Emetics as being the moſt ineffectual of all the reme-

dies which have been propoſed; and the employment of them muſt, he thinks, ever be attended with conſiderable injury, if they be had recourſe to before the action of the vital functions be reſtored. From experiments which he here relates, it even appears, that large quantities of emetic ſubſtances introduced into the ſtomach, though productive of no effect while reſpiration continues to be ſuſpended, will yet be followed by fatal conſequences, after a recovery has been effected by other means. He conſiders them, therefore, as being admiſſible only after circulation and reſpiration have been re-eſtabliſhed; and he thinks, that, even then, they ſhould be exhibited in thoſe caſes alone where the ſtomach is known to have been overloaded previous to the accident producing the diſeaſe.

With regard to blood-letting, Mr Coleman is of opinion, that if it were poſſible to take blood from the part where we know it ſuperabounds, it would prove one of the moſt immediate and efficacious means of recovery. But it is not in the power of art immediately to abſtract blood from the right ſide of the heart, which is always overloaded, and ſometimes

times even ceaſes to act from over-diſtenſion. From bleeding, therefore, as a general remedy, little advantage can be expected. In caſes where, from the former condition of the patient, we have reaſon to preſume that a general plethora previouſly exiſted, it may, he thinks, be ſerviceable, to diminiſh the exceſs of blood that loaded the ſyſtem. When blood-letting is deemed neceſſary, it ſhould, Mr Coleman thinks, be one of the firſt means of recovery to which we ſhould have recourſe. But in thoſe caſes where there is not ſufficient blood in the ſyſtem to furniſh a freſh ſupply to the right ſide of the heart, inſtead of promoting the good effects of other remedies, it may totally fruſtrate, or at leaſt retard them. After Hanging, however, blood-letting is, he thinks, more frequently neceſſary, than after Drowning or Suffocation, particularly in thoſe caſes where general plethora is united with bulk and weight; for although apoplexy, he thinks, can never happen from this cauſe, yet in ſuch caſes there is more than the natural quantity of blood in the head. Blood, in ſuch inſtances, ſhould, he thinks, be abſtracted from

the jugular veins, in preference to any other veſſel.

The effects of electricity and of artificial reſpiration, are next conſidered, both ſeparately and conjoined. He is of opinion, that very conſiderable miſchief may frequently enſue from the employment of Electricity, in the manner it has often been recommended. By ſtimulating the heart, without at the ſame time removing the mechanical obſtruction in the lungs from collapſe, a deſtruction of its irritability muſt follow without any advantage, as the circulation cannot effectually go on.

Equally little benefit is, he thinks, to be derived from inflating the lungs, and, immediately after, preſſing the cheſt, which has been recommended as an imitation of natural reſpiration: at leaſt, if this be productive of any benefit, it is only in conſequence of the heart being excited to action during the expanſion of the lungs. The treatment which, he thinks, ſhould obviouſly be purſued is, that we ſhould firſt expand the lungs, and when the collapſe is removed, ſtimulate the heart by a ſhock of electricity. From this the heart may be made to contract, while there is a free paſſage for the

the blood, and air in the lungs, to produce a change. The lungs ſhould then, he thinks, be perfectly collapſed, by which the blood will be conveyed into the trunks of the pulmonary veins, and left auricle, and circulation go on. Inflating the lungs, and electrifying the heart at the ſame time, may at firſt view, he obſerves, be thought a difficult and embarraſſing proceſs. But, by inſtruments properly conſtructed for the purpoſe, he has found that this may be very eaſily accompliſhed.

Where no electrical apparatus is in readineſs, the lungs ſhould ſtill be diſtended; and, after a ſmall quantity of air is allowed to eſcape, the inſpiration ſhould be repeated, and continued in this manner about a minute, before the lungs are completely exhauſted; ſo that there ſhould be but one complete expiration to ſeveral inſpirations. But during the whole proceſs of the treatment, the lungs, he tells us, ſhould never be ſuffered to remain in a collapſed ſtate for a ſingle minute.

We are next preſented with ſome obſervations on the effects of warmth. The gradual application of warmth has been by many ſtrongly recommended; and Mr Coleman ob-

ſerves, that it would be preſumptuous to deny, that the obſervations in ſupport of it are well founded; but he thinks, that the analogy between death from drowning, and from the application of cold, has been carried much farther than is well founded; for in the one, he conſiders the vital principle as being affected merely by a ſedative power; in the other, he views life as being endangered by a collapſe of the lungs. He agrees perfectly, however, with Dr Goodwyn and others, that warmth is eſſential, but that it ſhould neither be ſuddenly nor irregularly applied. He thinks, however, that it is by no means allowable, as ſome have adviſed, to wait for an increaſe of heat in the interior parts before the lungs are inflated. Nay, he thinks it even impracticable to increaſe the internal heat before this end be accompliſhed, unleſs irritability be abſolutely deſtroyed.

With regard to the degree of heat, ſeventy of Fahrenheit's ſcale is, he thinks, as much as ſhould ever be applied. Any degree above this, produces, he thinks, a waſte of ſtrength, which it ſhould be our endeavour to ſupport. For the application of heat, recourſe has been had

had to the warm bath, warm grains, and the like. But as theſe are ſeldom eaſily obtained, and interfere with other practices, he thinks it more adviſeable to place the patient on a mattreſs, or bed, at a proper diſtance from the fire, where every other operation that may be thought proper can be carried on at the ſame time.

With regard to frictions, he thinks it can hardly be doubted, that they have contributed in many inſtances to fruſtrate the moſt ſucceſsful treatment, by producing an over-diſtenſion of the right ſide of the heart. But as ſoon as the right ſide of the heart has been enabled to rid itſelf of a portion of its contents, we ſhould then, he thinks, proceed to frictions, as a ſubſtitute to the natural action of the arteries, and as a means of propelling the blood forward. He thinks it particularly neceſſary, that electricity ſhould be conjoined with frictions; but when, from any cauſe, we are prevented from electrifying, he thinks we ſhould be ſparing in the uſe of frictions, leſt, by an over-diſtenſion, we deſtroy the action of the heart.

From friction made uſe of as a ſtimulant, he is of opinion, that little or no advantage can be expected; and he condemns, in very ſtrong terms, friction with ſalt, brandy, volatile alkali, vitriolic acid, or the like, as well as the application of ſtimuli to the noſe and eyes, or tongue, ſcarifications, actual cautery, or the like. With the view of preventing excoriation, he recommends, that with the frictions, a little common oil, or lard, ſhould be employed; and he adviſes, that they ſhould be chiefly applied to the upper and lower extremities.

The laſt ſubject of which he treats, is the effect of Enemas. The practice of injecting tobacco ſmoke into the rectum, in caſes of ſuſpended reſpiration, he reprobates in the ſtrongeſt terms. He conſiders it as exhibiting a poiſon, which operates by producing ſuch an extreme degree of debility as no powers of life can ſupport; and he thinks, we might with as much propriety recommend tobacco in ſyncope, or in typhus fever, as in ſuſpended reſpiration from drowning; and his opinion on this, as well as many other particulars, he attempts alſo to confirm by experiment. Warm injections may indeed, he allows, have the ſalutary

lutary effect of ſlightly ſtimulating the inteſtines, and, by ſympathy, the heart alſo. But enemas ſhould always, he thinks, be of ſmall bulk, ſince ſmoke, and fluids of all kinds, when given in large quantities, will diſtend the inteſtines, and thus prevent the eaſy deſcent of the diaphragm. And upon the whole, he thinks, that more benefit may be expected from injecting ſome warm aromatic into the ſtomach, than into the rectum.

Having thus particularly examined the comparative merit of different practices, Mr Coleman concludes this treatiſe, with a brief account of the mode of cure which he would recommend, placed in a nearer and cloſer point of view. It is, in the firſt place, requiſite, that no perſons ſhould be preſent but thoſe who are abſolutely neceſſary, which, he thinks, ſhould not exceed eight or nine in all. The body, if wet, ſhould be gently dried with cloths, but in ſo cautious a manner, as to prevent the mechanical effect of the friction from propelling the blood towards the heart. Having prepared a bed, or mattreſs, on a table of convenient height; the body is to be placed on it, with the head a little elevated. Five or

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ſix ounces of brandy, rum, or ſome other warm aromatic, ſhould be thrown into the ſtomach, by means of the vegetable bottle and pipe, and the ivory director paſſed to the further part of the mouth, ſo as to cloſe the ſuperior aperture of the œſophagus.

If the patient ſeem plethoric, and more particularly if the diſeaſe have been occaſioned by hanging; bleeding ſhould be employed, and that as one of the firſt remedies; nor ſhould the application of a proper degree of warmth be neglected.

The curved pipe being then introduced into the trachea, and ſecured by an aſſiſtant, and the flexible tube, &c. being attached, the lungs ought as ſoon as poſſible to be inflated; and the electrical machine being prepared, one director is to be placed between the fourth and fifth rib of the left ſide, and the other between the ſecond and third of the right, when the electrometer is to be placed a little more than one third of an inch from the jar, and the ſtroke given. The electrical ſhock is to be repeated once or twice; and the aſſiſtant, who prevented the air from eſcaping by the noſtrils and mouth, ſhould then remove his hands, and preſs the cheſt;

cheſt; but, immediately afterwards, expand the lungs, for the heart to be again ſtimulated.

If any impediment ſhould prevent the introduction of the pipe down the trachea, bronchotomy ſhould be directly performed, and the curved pipe inſerted into the trachea at this aperture.

When the lungs have been three or four times expanded and collapſed, frictions are to be had recourſe to: theſe, together with the proceſs of expanding the lungs, and at the ſame time electrifying the heart, and then again collapſing them, are to be continued four hours without intermiſſion, unleſs natural reſpiration be reſtored.

In ſome caſes, where the living powers are remarkably languid, it may be adviſeable to continue the uſe of electricity and gentle frictions, even after reſpiration is renewed, as there have been inſtances of momentary and tranſitory recoveries, which may be conceived to ariſe either from the heart not poſſeſſing ſufficient irritability to carry on the circulation, or from want of a ſupply of blood. But both theſe obſtacles may be removed, by aſſiſting the heart and arteries to perform their reſpective

reſpective functions, after the muſcles of reſpiration have been ſtimulated to action.

In this manner Mr Coleman propoſes that the practice ſhould be conducted, where a proper apparatus is at hand. But where an electrical machine is not in readineſs, the method of performing artificial reſpiration, ſhould, he thinks, be altered. When the lungs are expanded, the aſſiſtant, who has the charge of the mouth and noſtrils, ſhould, he tells us, ſuffer a ſmall quantity of air to eſcape, while the other aſſiſtant continues to throw in a freſh ſupply. It cannot, he adds, be too frequently inculcated, that the lungs are never to be ſuffered to remain collapſed; for all our endeavours and attempts to effect a recovery, ſhould the lungs be permitted to continue in that ſtate, muſt ultimately prove fruitleſs and ineffectual.

With regard to different parts of Mr Coleman's reaſoning, we muſt own that we cannot help entertaining many doubts. But the practices on which he places the chief confidence, particularly proper inflation of the lungs, moderate warmth, frictions, and electricity, are the modes of cure from which, on

different

different theories, we may with greateſt confidence look for ſucceſs; and we ſincerely wiſh, that, from the particular modes of adminiſtration which he has propoſed, the benefit reſulting from them may be augmented.

XII.

XII.

D. Sam. Gottl. Vogelii, *Seren. Duc. Regn. Megapol. à Conſil. Aul. Med. P. P. O. in Univer. Lit. Roſtoch. Diatribe Medico-politica de Cauſis quare tot Submerſi in Vitam non revocentur. Præmiſſa eſt Hiſtoria memorabilis cujuſdam fauſti exempli.* 12mo, Hamburgi.

THE learned author of this eſſay introduces his obſervations, by relating a remarkable caſe of recovery, after apparent death had taken place by Drowning. This caſe, however, did not fall under his own obſervation; it occurred at Hamburgh, and was communicated to him by Dr Schroeder of that city, under whoſe direction the means of recovery were employed. In this caſe, although the time for which the boy was under water was not exactly aſcertained, yet it was concluded, that he could not have been leſs than

than half an hour under water. When he was found, there was every appearance of death. His whole body was not only cold, but ſtiff; his lips livid, the balls of the eyes diſtorted, and the pupils dilated, without even the ſlighteſt appearance either of circulation or reſpiration. After employing means of recovery for about an hour and a half, ſome convulſive motions at laſt took place, which were gradually ſucceeded by other ſigns of life; ſo that, at laſt, a complete recovery took place. Dr Schroeder aſcribes the recovery chiefly to careful friction over the whole ſurface of the body, and to careful inflation of the lungs; while, at the ſame time, veneſection was avoided. And Dr Vogel is of opinion, that this caſe particularly deſerves to be recorded, becauſe the means of cure were ſo ſimple.

While ſome ſuch caſes as that before related, demonſtrate the poſſibility of recovery, where appearances are very unfavourable, it is yet, our author obſerves, much to be regreted, that recoveries upon the whole are but rare. In proof of this, he mentions ſeveral large towns, in which, though drowning be very frequent, yet not a ſingle recovery has

taken

taken place for ſeveral years. An inquiry, therefore, into the cauſes why recoveries are ſo rare, he conſiders as an object well meriting attention.

He begins by conſidering thoſe cauſes which preclude all hopes of recovery. The firſt which he points out, is continuance for a certain length of time under water. From the obſervations made by the Humane Society of London, he infers, that patients will be very generally irrecoverable who have been three quarters of an hour under water. But it is unqueſtionably ſafer to extend the term of poſſible recovery, than to limit it, beyond the truth. He thinks, however, that no one can with juſtice be accuſed of neglect, though he have not recourſe to any means of recovery, if the patient has been two hours, or even an hour and a half, under water. But in many inſtances, we know nothing of the time for which the body has been under water. If, however, in theſe caſes there be evident marks of putridity, a cadaverous ſmell, and general emphyſema; theſe, he thinks, are indubitable proofs, that the body has been ſo long in the water as to preclude any poſſibility of

of recovery. All the other marks of death which have been commonly pointed out, though many of them give a ſtrong preſumption, he conſiders as by themſelves at leaſt doubtful.

A ſecond ſet of irrecoverable caſes are thoſe, where patients taken out of the water, have not in reality been ſuffocated, but have periſhed from ſome other cauſe of death. Many conſpiring cauſes, at the time of drowning, may bring on fatal apoplexy, ſpaſms, or convulſions; or death may have been the conſequence of ſevere injuries to the head, ſtomach, or other very ſenſible parts. From theſe, and ſimilar circumſtances, a perſon who has been but a ſhort time under water, may yet be in an irrecoverable ſtate.

A third cauſe, from which caſes are not unfrequently rendered irrecoverable, is the too ſlow application of the means of cure. In this particular, he obſerves, that very great improvements have of late been made, from the contrivance of proper boxes, containing all the neceſſary apparatus, as prepared by Pia, Gardone, Cogan, and others; and particularly, what he conſiders as an improvement upon all the others, that of Mr Kite. But he obſerves,

that, from unaccountable negligence, or indolence, ſeveral large towns, where accidents from drowning are very frequent, have never hitherto made proper proviſions of this kind; and he points out his native country, Mecklenburg, and the city of his reſidence, Roſtoch, as being very deficient in theſe particulars, notwithſtanding the danger to which they are expoſed from the river Warna. He enters alſo, at conſiderable length, into a detail of the plan by which this may be obviated.

Another cauſe which he points out, as not unfrequently preventing the recovery of the drowned, is, that the neceſſary aſſiſtance and remedies are applied either injudiciouſly, or without ſufficient diligence. Theſe remedies he conſiders as in general employed with one of four intentions, either for affording irritation, for increaſing the heat, for producing depletion of the veſſels of the brain and lungs, or for renewing reſpiration; and he gives a very full enumeration of the particular practices referable to each head. He mentions many controverſies which have ſubſiſted among the moſt eminent practitioners, reſpecting almoſt every article of this numerous liſt; and he obſerves,

ſerves, that as the mode of cure which is adopted, can only be ſucceſsful when properly accommodated to the nature of the caſe, want of recovery muſt often ariſe from neceſſary ignorance of circumſtances.

Terror, confuſion, and perturbation of mind, are next pointed out as cauſes by which a recovery is ſometimes prevented. By theſe, much time is often loſt. From every moment, however, the danger is increaſed.

The laſt cauſe which he points out, as contributing not a little to render recoveries leſs frequent than might otherwiſe be the caſe, is the too early belief of patients being in an irrecoverable ſtate; and, in conſequence of this, the proper means of recovery not being employed for a ſufficient length of time.

From the cauſes being thus pointed out, why ſo few recover from drowning, Dr Vogel imagines, that, on particular occaſions at leaſt, ſome of theſe may be ſucceſsfully obviated. And he ſubjoins a brief account of the method of cure which he thinks ought in general to be adopted.

In taking the body out of the water, all external injuries, and other rough treatment, are,

he obſerves, to be avoided as much as poſſible. When it has been conveyed to a proper ſituation, the wet clothes are to be taken off, the whole body is to be carefully dried, and the mouth and noſe freed from any filth that may tend to obſtruct the paſſage of air. The body muſt be placed with the head ſomewhat raiſed, in ſuch a ſituation that there may be free acceſs to it on all ſides, and that its poſition may be eaſily changed. A proper coverlet, ſomewhat warmed, is then to be thrown over the whole body, leaving the head free. Let aſſiſtants, by introducing their hands under this covering, gently and equably rub the whole body with dry flannel cloths, impregnated with the ſmoke of juniper, maſtich, olibanum, or ſome ſimilar ſubſtance; the cloths being carefully dried, and fumigated by other aſſiſtants.

During the time of the frictions, an attempt muſt be made to inflate the lungs with air, by blowing it in at the noſe, or even through the glottis, by means of a proper tube. The tongue being drawn ſomewhat forwards, and this tube introduced, which is always much preferable to bronchotomy, inflation is to be performed, by

by a man whoſe lungs are ſtrong and ſound, with ſuch force, that the air may penetrate to the extreme veſſels of the lungs of the drowned perſon; and to accompliſh this, the mouth and noſtrils, excepting where the tube is introduced, muſt be kept carefully ſhut. The cheſt and abdomen thus raiſed, are to be again gently depreſſed; and the alternate introduction and expulſion of air regularly continued in this manner for a due length of time.

In conjunction with friction and artificial reſpiration, at intervals of from ten to twenty minutes, warm ſtimulant glyſters are to be injected, impregnated with an infuſion of tobacco, emetic tartar, oxymel of ſquills, volatile alkaline ſpirit, or ſome ſimilar article.

If, from the continuance of this ſimple method for the ſpace of an hour or upwards, no ſign of life can be detected, Dr Vogel thinks, there is much reaſon to fear that the patient is in an irrecoverable ſtate. Nay, he is even perſuaded, that not a few will recover as effectually from being laid in a proper ſituation, duly covered, and gently rubbed with the hands of aſſiſtants alone, as they would do by the employment of more numerous practices:

and, whatever be the practices employed, it is neceſſary, he tells us, attentively to watch the firſt returns of life; and when any ſigns of life appear, every mode of cure is, for a little at leaſt, to be laid aſide; leſt, by officious labour, we ſhould diſturb the more ſalutary operations of nature. And he obſerves, "Gravis regula contra quam peccant optimi medici. Feſtina lente; aliquid naturæ committe, et illi confide ſi tempus adjuvet. Non plus mederi oportet, quam quantum vides medendum eſſe."

Dr Vogel's obſervations on the method of treatment in caſes of this kind, are concluded with ſome remarks on blood-letting. Where manifeſt ſigns of apoplexy, or exuberance of blood, can be detected, and where the drowned perſon is of a robuſt and athletic habit, or where he has fallen into the water in conſequence of previous inebriation, there can, he thinks, be little doubt, that in order to promote the return of life, the veins muſt be relieved from the load by which they compreſs the brain, and are deprived of their tone. But the time of blood-letting, the place from which it is to be taken, and the extent to which it is to be let, are matters of no ſmall

conſequence;

conſequence; for in theſe particulars, he obſerves, errors are often committed. Where the ſigns of plethora and turgeſcence are ſtrong, it ſhould be performed prior to every other attempt to cure; and when the blood freely and forcibly flows from the vein when cut, with more confidence may we proceed in the diſcharge; but where the ſigns indicating blood-letting are not conſiderable, it will in general, he thinks, be proper to delay it, till, by the application of other remedies, there be appearances of returning life; and when performed at this time with thoſe of full habits, it has often, he tells us, been obſerved, that the pulſe, before ſmall and oppreſſed, became ſtronger and fuller, and at the ſame time reſpiration more free. Symptoms ſometimes occur, which indicate even a repetition of blood-letting before a perfect recovery; and he conſiders a repetition as requiſite, where there take place violent pain of the head or breaſt, long continued ſopor, delirium, difficult reſpiration, violent cough, hæmoptoe, or ſymptoms of peripneumony.

But if, in ſome caſes, there be ſymptoms thus indicating even the repetition of blood-

letting, ſo, in other caſes, where ſigns of returning life take place, it is to be as carefully ſhunned, leſt the very primordia of life ſhould, as it were, be diſcharged with the blood; and with the weak and infirm, unleſs from urgent ſymptoms, it is never, he thinks, to be directed.

When blood letting is neceſſary, Dr Vogel thinks, there can be no doubt that the diſcharge ſhould in general be made from the external jugulars. Where blood cannot be obtained from theſe, he adviſes it to be let from either temporal artery; for though the arteries be leſs diſtended with blood than the veins, they are more irritable; and if there be the ſmalleſt remains of life, a diſcharge will not fail to be obtained from theſe veſſels. In ſuch caſes, alſo, he adviſes cupping, with ſcarification, to the head, the neck, and the temples, which, beſides operating as evacuants, are often alſo uſeful as ſtimulants.

The quantity of blood to be let, cannot, he obſerves, be eaſily determined, but muſt be regulated by the circumſtances of age, ſex, conſtitution, and other particulars, whether external

ternal or internal, which indicate the employment of it.

It will often happen, that after a patient is almoſt entirely recovered from the effects of ſubmerſion, ſymptoms of a different kind will ſupervene. To theſe, according to their nature and tendency, the ſkilful phyſician muſt direct proper remedies; for without theſe, he who had but juſt eſcaped death from drowning, will, as is not unfrequently the caſe, in a ſhort time fall a victim to another diſeaſe.

Dr Vogel concludes this treatiſe, by preſenting to his readers a catalogue of the moſt valuable publications which have appeared on this important ſubject; but he contents himſelf with merely mentioning the names of thoſe who wrote on the ſubject of ſubmerſion prior to the year 1777. Of the later publications, and even of the tranſlations into German of the writings of Cullen, Goodwyn, Kite, and other eminent Britiſh authors who have treated of this ſubject, he gives the titles at full length: and he concludes with a liſt of the dates of public edicts, iſſued by different provinces and cities, for making proper proviſions againſt accidents from drowning. We cannot help

help expreſſing a regret, that no Britiſh ſtatute appears in his liſt; for it is, we think, a ſubject which ſhould not be entirely devolved on humane ſocieties, or the voluntary exertions of benevolent individuals. Where the ſituation of cities, towns, and even villages, is ſuch as to render frequent accidents of this kind unavoidable, it would be wiſdom in the Legiſlature to oblige the community to make proper proviſions for recovery. And we cannot help entertaining a hope, that this too long neglected ſubject may at laſt attract the attention of the Britiſh Parliament.

XIII.

XIII.

Prælectio Academica, ſimpliciores et ſalubriores comprehendens de Febribus Notiones, pro annuo Munere, Cathedræ de Lege adjunto, implendo elucubrata, et ſapientiſſimis medicis Profeſſoribus dicata. A D. D. Joſepho Pinilla Vizcayno, *Doct. Med. in Majori Univerſali Gymnaſio Complutenſi, Regio Profeſſore Primario, et Regalis Academiæ Medicæ Matritenſis Socio.* 4to, Compluti.

THE author ſets out with obſerving, that the diverſity which takes place in the form of Fevers, has led noſological writers to divide them into a very great variety of genera and ſpecies, inſomuch that, in the writings of the late noſologiſts, near three hundred different modifications have been pointed out. Hence, both in the diagnoſtic and cure, very great difficulties have ariſen to young practitioners. He thinks, however, that, with Seneca,

Seneca, we may juſtly aſſert, that as much miſchief follows from too far extended diviſions, as from none. To correct and ſimplify our opinions on this ſubject, therefore, he conſiders as being a deſideratum of importance in medicine.

The heart Dr Pinilla conſiders as being the primum vivens, that is, the firſt part exerciſing motion in the primordial ſtamina of the human ſpecies. The common, or public action of the heart, as he ſtyles it, conſiſts in its ſyſtole, or contraction, propelling the blood from its cavities into every different part of the body, through the arteries. To this follows the diaſtole, or dilatation, during which the heart again receives from the veins the circulating vital fluid; and from this circulation ariſes, he thinks, the heat of the body. By the ſyſtolic action of the heart, and calorific circular motion of the blood, health is preſerved, where the neceſſary aliment is not deficient.

The ſyſtolic action of the heart, however, alternated with its diaſtole, and accordingly moſt certainly marked by the pulſation of the arteries, and on this account frequently called the pulſific action of the heart, is equally, or perhaps

perhaps even more eaſily capable of alteration, than any other action of the body: but, chiefly, alterations are produced in the frequency of the repetition of its action in a limited time. Where morbid frequency in the repetition of this pulſific action takes place, it has been common in all ages to term that ſtate Fever, becauſe it very generally brings along with it, as he obſerves, the effects, fervendi vel furendi aut februandi. He thinks, therefore, that the irregularly increaſed pulſific action of the heart, cannot be expreſſed by a better appellation than that of Fever; nor, on the other hand, can we have a clearer or more ſimple idea of Fever, than that it conſiſts in ſuch action.

As the firſt and following contractions of the heart, during the continuance of health, are produced in a regulated degree of frequency, by nature aiming at the preſervation of life; ſo an irregular augmentation of its ſyſtolic frequency, may be conſidered as merely a greater effort, by which nature, in conſequence of the preſence of ſome hurtful cauſe, or the knowledge of ſome imminent danger, attempts to preſerve health.

But

But increaſed frequency of action in the heart, is not always accompanied with increaſed circulation of the blood, or augmented generation of heat. On the contrary, with this action diminiſhed, heat, and weaker circulation, are not unfrequently obſerved. When this, however, is the caſe, the patient can hardly, he thinks, be ſaid fervere aut februare. But this he views as being merely accidental; and as it depends ſolely on the defect of ſome requiſite, it cannot be conſidered as any variety of nature in her conſervatory principle; but, for the ſake of diſtinction, he thinks it may be called Febris notha, inchoata, ſeu imperfecta vel imminuta. But the vera et perfecta Febris, he views as conſiſting in increaſed ſyſtolic frequency of the heart, with augmented circulation of the blood, and augmented heat, either in the whole body, or in ſome part of it, ariſing from the conſervatory power of life; not from any chemical or mechanical ſtimulus, operating independently of the powers of nature.

It is, Dr Pinilla obſerves, the ſubject of daily obſervation, that ſuch a fever reſtores to many,

many, a ſtate of the moſt perfect health. This good effect occurs, provided the increaſe of circulation and heat be ſuch as the idioſyncraſy of the particular patient can bear. This, which by Hippocrates and others has been termed a ſalutary fever, our author terms the Febris Moderata. On many occaſions, however, when the augmentation of heat and of circulation becomes intolerable to the patient, fevers terminate in death. This, again, he ſtyles the Febris Excedens. When any one, therefore, viſits a ſick perſon ſubjected to fever, in our author's opinion, the only neceſſary inquiry is to determine, whether it fall under the head of Febris Imminuta, Moderata, or Excedens. He conſiders all the other diſtinctions, ſuch as the diviſions into Intermittent, Continued, Peſtilential, Epidemic, Endemic, and the like, though producing varieties in appearance, as not altering the ſpecies of leſion of the ſyſtolic action of the heart.

The increaſed frequency of the ſyſtolic action of the heart, may, he obſerves, ariſe from an almoſt infinite diverſity of cauſes. That all the morbid conditions of the human body

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are fitted for the production of fever, and that no diſeaſe can be of long continuance without the induction of fever, we are, he thinks, taught by daily experience. Conſidering fever as being in every caſe the conſequence of ſome morbid cauſe previouſly exiſting, it is, he thinks, very generally to be treated rather upon the principle of fulfilling a palliative indication, than of aiming at a curative; that is, the radical removal of the morbid cauſe.

The fulfilling this palliative indication in general, conſiſts, 1*ſt*, In properly leſſening or moderating excedent ſyſtolic frequency: 2*d*, In prudently augmenting and increaſing the febris imminuta, that it may become a febris vera et completa: 3*d*, In ſupporting, till the wiſhed for termination, the affectio febrilis moderata.

In treating more minutely of the palliative method of cure, he begins with the conſideration of the Febris excedens, which is peculiarly ſuited to this mode of treatment, as being often ſucceſsfully combated by the antiphlogiſtic method of treatment, and in which indeed there occurs a natural tendency to recovery,

covery, from the averſion to all ſolid food, and the deſire of liquids. For moderating the Febris excedens, Dr Pinilla is of opinion, that there does not exiſt any peculiar or ſpecific febrifuge; but that thoſe general practices only are uſeful, which diminiſh increaſed heat and circulation, whether they belong to the tribe of alterants or evacuants.

More ſkill and prudence is, he tells us, requiſite in the treatment of the Febris imminuta, for correcting thoſe paſſive ſymptoms which have always a fatal tendency. Here the inveſtigation of the primary morbid cauſe, is of the utmoſt conſequence. For, from this circumſtance, aliment, which might be ſuppoſed to recruit the ſtrength, often increaſes weakneſs; while, on the other hand, evacuants, on ſome particular occaſions, tend even to ſtrengthen a weak body, and therefore, in ſuch circumſtances, may not improperly be conſidered even as cardiacs. In this fever, increaſed heat, from chemical or mechanical cauſes, often takes place, with dimiſhed circulation, and a deficiency of the vis vitæ. But, with due conſideration of the cauſe, and not neglecting

other modes of cure, this fever is, he thinks, in general to be combated by a timely and proper ſelection of what are commonly called cardiacs; and among theſe, he is chiefly diſpoſed to place confidence on what he calls the Cortex de Quarango, probably a name for the Peruvian bark, and on the different preparations of iron.

The treatment of the Febris Moderata, is, according to Dr Pinilla, ſtill more difficult than that of the Imminuta; for here it is often neceſſary, that the practitioner ſhould be a mere ſpectator, and that he ſhould in due time give up the uſe of medicines; and, in his opinion, it frequently requires greater ſkill to ſtop when it is proper, than to act on ſuitable occaſions. The palliative cure of the Febris Moderata, may often, Dr Pinilla thinks, be accompliſhed by the regulation of diet alone; particularly, by paying due regard to the geſta, ingeſta, retenta, and excreta. But, on other occaſions, ſuch inactivity would be highly culpable. And here it is chiefly neceſſary, that the phyſician ſhould be the imitator of nature, endeavouring to preſerve the diſeaſe

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in the ſtate of the Febris moderata; and to prevent its degeneracy, either into the Febris excedens on the one hand, or the Febris moderata on the other. But this fever, more perhaps than any other modification, requires the radical cure; for, by the continuance of the morbid cauſe inducing it, or from peculiar idioſyncraſy, there is a great chance of its either becoming irremoveable, or inducing other affections very difficult of cure.

That the view here given of the nature and treatment of fevers is ſimple, will not be denied; but how far it is more conſonant to truth than other theories formerly propoſed, we will not pretend to ſay. We muſt candidly acknowledge, that we have hitherto examined no theory of Fever, which does not appear to us liable to numerous and inſurmountable objections. And the moſt ſucceſsful method of treatment, is, we believe, more to be determined by proper attention to the juvantia and lædentia, than by dependence on any theory whatever. This indeed ſeems to be very much the plan of our preſent author; and we readily agree with him in opinion, that

the patient often derives as much benefit from a judicious determination when it is proper that nothing ſhould be done, than even from the timely adminiſtration of the moſt powerful and active remedies.

XIV.

XIV.

Obſervations on the Effects of Camphor applied externally, in ſome caſes of Retention of Urine. By Mr John Latham, *F. R. S. Surgeon at Dartford.* Vide *Medical Communications, Vol. II.* 8vo, London.

THE paper before us contains different caſes, in which ſurpriſing good effects were derived from the external application of Camphor. And, if the ſame benefit ſhall be derived from it in ſimilar caſes, its introduction, in this manner, may juſtly be conſidered as a diſcovery of great importance in the practice of medicine.

In the firſt caſe which Mr Latham relates, the patient was a gentleman upwards of 70 years of age, thin, and of a delicate conſtitution, but tolerably healthy, temperate in his diet, and uſed moderate exerciſe. On the 10th of November, he had been caught in the

rain while on horſeback; and, on the following day, had ſome uneaſineſs in making water, but not much greater than he had often before experienced; as, for ſome years before, he had not been able to retain his urine, for any conſiderable length of time, without inconvenience. On the 14th, a total retention of urine took place, attended with violent and painful efforts to void it, a quick pulſe, and ſome degree of thirſt. From that time, it was always neceſſary to draw off his water by means of a catheter; although, in the mean time, ſeveral plans of treatment were adopted. Bleeding, evacuating the bowels with ol. ricini, and the uſe of the ſemicupium, were changed for bark, and the application of cloths dipped in cold water to the pubis. It was ſoon, however, neceſſary to return to the firſt mode of treatment, on account of the increaſed irritation, and marks of inflammation. Muſk, in large doſes, was next employed, but without advantage.

Mr Latham, having read of the good effects of the external application of Camphor in ſtranguries, and having obſerved, that its application produced a more copious flow of u-

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rine than uſual, and likewiſe recollecting, that it is ſometimes employed to counteract the irritation of cantharides on the urinary organs, thought that it might poſſibly be of uſe in this caſe. Accordingly, on the ſecond application of a liniment, prepared of oil of almonds, with as much camphor as could be diſſolved in it, which was to be uſed every four hours, the patient voided about half an ounce of urine, and continued to void it, in larger quantities, from time to time, till the 22d.

The uſe of the catheter (which had been introduced ſixty-ſeven times) was now no longer neceſſary; and, by proper remedies, and a reſtorative diet, the patient recovered his uſual ſtrength; nor had he afterwards any return of this complaint.

Mr Latham relates another caſe, the ſubject of which was a poor woman, of a delicate conſtitution, who had been ſeized with a retention of urine, in conſequence of expoſure to cold. In this caſe, alſo, the camphorated liniment ſucceeded, after the failure of ſeveral other remedies. He concludes this pa-

per with obſerving, that, in two inſtances of retention of urine, after difficult labours, which continued longer than uſual, he had applied camphor externally, with the deſired ſucceſs.

XV.

XV.

Obſervations on the uſe of Opium in the Venereal Diſeaſe. By Mr John Pearſon, *Surgeon to the Lock Hoſpital, and to the Public Diſpenſary.* Vide *Medical Communications, Vol. II.* 8vo, London.

AS the alleviation of human miſery, Mr Pearſon obſerves, is the grand object of the art of phyſic, every propoſal that tends to facilitate ſo important a deſign, is highly worthy of attention. But it is a well known fact, that in our attempts to remove diſeaſe, we are often obliged to have recourſe to very active remedies, whoſe ſalutary properties it would be deſirable to obtain in a ſimple unconnected form. The certain efficacy of ſuch medicines renders them a very valuable acquiſition; yet a variety of circumſtances concur, to prevent us from always obtaining the whole of their advantages. Among ſuch articles of the

the materia medica, Mercury, in a ſimple and combined form, has long maintained a high reputation. It has been regarded as the only ſpecific to be depended upon in the cure of lues venerea. Practitioners, however, are aware, that effects, unfriendly to the animal œconomy, ſometimes reſult from its uſe; and inſtances do occur, wherein our beſt efforts are baffled by idioſyncraſy.

Under ſuch circumſtances, it becomes an object of great conſequence to be acquainted with a remedy, whoſe efficacy in the cure of ſyphilis is equally to be depended upon, and the adminiſtration of which will never be attended with injury to the conſtitution. Some accounts, tending to prove that opium poſſeſſes theſe qualities, have been preſented to the public, to the end that its merit might be more accurately inveſtigated. In concurrence with ſo laudable a deſign, Mr Pearſon has given an account of ſome experiments made with opium, in order to determine its real power in lues venerea.

To aſcertain the ſpecific power of opium, in deſtroying the venereal virus, it is neceſſary, Mr Pearſon obſerves,

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1*ſt*, To adminiſter it in caſes truly venereal.

2*dly*, To be ſure that no mercury has been previouſly exhibited.

3*dly*, The cure ought to be permanent.

4*thly*, The number of negative inſtances ought not to exceed thoſe which attend the adminiſtration of mercury.

5*thly*, As the poſſeſſion of thoſe qualities would only place it on a level with mercury, it becomes neceſſary, in order to prove its ſuperiority, that leſs diſturbance be produced in the ſyſtem during the adminiſtration of opium, and that the conſtitution ſuffer leſs permanent injury.

In trying this remedy, Mr Pearſon has been careful to ſelect ſuch ſubjects as had not taken any mercury, and always premiſed bleeding and a purgative, before the adminiſtration of opium.

Out of eight caſes which the author here relates at length, but which we cannot attempt to abridge, two only were cured by opium alone. In the one caſe, it was given to the extent of ten grains a day; but, in general, eight grains a day occaſioned ſevere pain

pain of the head, accompanied with giddineſs, ſickneſs at ſtomach, and ſlight feveriſh ſymptoms.

It is now two years, Mr Pearſon obſerves, ſince he firſt began to try the efficacy of opium as an antivenereal remedy. The only caſes in which it ſeemed to ſucceed with him, are now made public. In every other inſtance, either of ſyphilis or gonorrhœa, the event has proved unſucceſsful.

The author did not apply a ſolution of opium to the venereal ſores, becauſe the healing of theſe, by external applications, would have rendered the virtues of the new remedy leſs conſpicuous. When mercury is properly introduced into the ſyſtem, this kind of ulcer will frequently get well by the moſt ſimple applications.

There is a very ſtriking difference in the degree of ſucceſs which has attended the uſe of opium. In Medical Communications, Vol. I. the ſucceſsful caſes are ſaid to be three to one. Our author obſerves, he has not found it advantageous once in ten times; and, in thoſe caſes where it was apparently uſeful, he

he ſtrongly ſuſpects that they were not truly venereal.

The moſt experienced practitioner cannot always give a decided opinion, whether the patient is or is not tainted with ſyphilitic virus. When the hiſtory and collateral circumſtances have rendered it probable, it is uſually ſafe to act upon ſuch a preſumption; but, when a new medicine is propoſed as a ſpecific in the cure of this dreadful diſorder, we are authorized to expect ſomething more than a preſumptive evidence of its efficacy. Mercury, properly adminiſtered, ſcarcely fails five times in five hundred of thoſe caſes commonly regarded as venereal. The proof of its ſpecific powers, therefore, almoſt amounts to a certainty. But, if opium fails as often as it ſucceeds, which, in Mr Pearſon's opinion, is ſaying a great deal more than experience will warrant, it ought to be regarded as a remedy of very doubtful efficacy. Decoctions of Guaiacum, China-root, Sarſaparilla, &c. have been highly celebrated as antivenereal remedies, and their virtues were warranted by men of great reputation. We have now, however, learned to diſcriminate between their real and

apparent

apparent merits, and never depend ſolely on their efficacy in the cure of lues venerea.

It has been the cuſtom, for many years, to give opium, either alone or joined with antimony, or decoctions of the woods, to remove ſome of the troubleſome ſymptoms that often remain after the venereal virus is deſtroyed. Mr Pearſon obſerves, that he has often uſed it with advantage during the whole courſe of mercury; but experience does not permit a reliance on its powers alone, in caſes truly venereal.

With regard to the comparative effects of opium and mercury on the conſtitution, the author thinks it right to obſerve, that the exhibition of the former was accompanied with as many troubleſome attendants as the latter. He alſo thinks few charges can be ſeriouſly produced againſt mercury, from which, when properly adminiſtered, the conſtitution ſuffers any permanent injury. That very pernicious conſequences daily reſult from its general and unqualified uſe, is a fact not to be denied. But this muſt, he thinks, be almoſt ſolely attributed to that encouragement of empiriciſm which diſgraces the metropolis.

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In attempting to aſcertain the powers of any article of the materia medica, it is highly neceſſary to diſcriminate its proper and direct effects, from thoſe which are only ſecondary or accidental. It was long ago obſerved, that opium ſometimes proved purgative; and, from later obſervations, this appears to ariſe from an accumulation of this drug in the inteſtinal canal. The moſt proper remedy againſt ſuch a diarrhœa, is the exhibition of cathartics. But theſe facts are far from invalidating the general opinion, that "opium induces coſtiveneſs;" for the diarrhœa is the conſequence of accumulated fæces in the inteſtines. That opium diminiſhes all ſecretion except perſpiration, has been hitherto regarded as an incontrovertible fact. We ought therefore, Mr Pearſon obſerves, to have well atteſted proofs of its diuretic and ſalivating powers, before any inferences can be deduced of a practical nature, from a propoſition ſo apparently paradoxical.

Upon the whole, the experience which Mr Pearſon has had of the effects of opium, in caſes which were indubitable inſtances of Syphilis, would lead to the belief, that many of

of the alleged cures of venereal affections, by means of this remedy, were founded on deception; and we muſt alſo add, that our own obſervation tends very much to confirm this opinion. At the ſame time, we have met with ſeveral inſtances, where there were a variety of ſymptoms, apparently from a venereal cauſe, in which, either in conjunction with the uſe of mercury, or after its employment, opium ſeemed to be productive of the beſt effect. In theſe caſes, no ſalivation ever aroſe from the employment of opium; nor did we ever meet with any inſtance of ſalivation occurring from opium, when employed in other diſeaſes to a conſiderable extent, and for a great length of time. There is therefore, perhaps, too much ground for ſuſpecting, where ſalivation occurs in Syphilis, when opium alone has been directed, that the patient has been employing mercury without the knowledge of the medical practitioner. And, from deceptions of this nature, we are inclined to think, that no inconſiderable ſhare of the reputation of opium, as an antivenereal remedy, has been derived.

XVI.

XVI.

On the Medicinal Properties of the Muriated Barytes. By Adair Crawford, *M. D. F. R. S. Phyſician to St Thomas's Hoſpital.* Vide *Medical Communications, Vol. II.* 8vo, London.

IN a former volume of this work, ſome account was given of the introduction of muriated Barytes into the practice of medicine, by the inſertion of a letter from Dr Crawford to Dr Duncan, on that ſubject. In the eſſay now before us, the public are preſented, not only with a more full account of this article, but alſo with a particular detail of all the trials which were made with it, in caſes admitted into St Thomas's hoſpital, prior to the month of June 1789.

From theſe caſes, amounting to ſeventeen in number, it appears, that it was often uſed with very great benefit. It indeed appears,

that very little benefit was afforded by it in the laſt ſtages of Cancer and Conſumption. But, in all the other caſes in which it was tried, of which, however, we cannot here propoſe to give a detail, its exhibition was productive of ſalutary effects. Indeed, in ſome inſtances, it removed diſeaſes which Dr Crawford thinks could not have been ſubdued by any other remedy. This was particularly the caſe in ſcrophulous complaints, in which it ſeems to have acted with a degree of force and certainty unexampled in the records of medicine.

This article was exhibited under the form of a ſaturated ſolution of the ſalt in water, and was taken from two to ten drops for a doſe, twice a day, in a tea-cupful of pure water, or any other convenient vehicle. When it was exhibited in ſmall doſes, it appears, in a few inſtances, to have increaſed the ſecretion by the ſkin; and, in many, it occaſioned an unuſual flow of urine; but, almoſt univerſally, it improved the appetite, and general health. In Dr Crawfords opinion, it combines within itſelf the qualities of an evacuant, a deobſtruent, and a tonic. Like other active medicines,

medicines, however, there can be no doubt, that, if injudiciouſly adminiſtered, it would be capable of producing deleterious effects. In conſiderable doſes, frequently repeated, it would leſſen the appetite, by the conſtant ſickneſs at ſtomach which it would occaſion. And, in a ſtill greater doſe, Dr Crawford thinks that it would be productive of much danger, by diſordering the nervous ſyſtem, and by operating violently as an emetic and purgative.

The muriated Barytes which Dr Crawford at firſt employed, was not in a ſtate of perfect purity. It contained a ſmall quantity of iron, combined with the muriatic acid. It may perhaps be uncertain, whether the virtues of this compound may not exceed thoſe of the pure muriated Barytes. But Dr Crawford has had ſufficient reaſon to be convinced, that the latter ſubſtance is a very efficacious medicine. There is, he thinks, reaſon to conclude, that pure muriated barytes is peculiarly calculated to correct the ſcrophulous diatheſis; but when that diatheſis is accompanied with great debility, and with a languid circulation, the efficacy of the ſalt may, he thinks, be probably

increaſed by the addition of the muriated iron.

Dr Crawford farther obſerves, that moſt of the minerals from which the Terra ponderoſa is extracted, have a greater or leſs proportion of lead in their compoſition. Some of them are contaminated with copper; and Dr Crawford has even many ſpecimens of the aerated barytes, which contain ramifications of miſpikel, an ore conſiſting of iron mineralized by arſenic. The utmoſt caution, therefore, is neceſſary, for obtaining the ſalt perfectly free from any admixture of thoſe ſubſtances. And Dr Crawford very properly points out to thoſe who wiſh to purchaſe it for medical uſe, the method of determining its purity.

The ſolution of this ſalt in water, ſhould, he obſerves, be perfectly tranſparent and colourleſs; but, even from want of colour, we are not to infer that it is perfectly pure.

The preſence of iron may be determined with certainty by means of the Pruſſian alkali; for, if the ſolution contain iron, a ſmall quantity of that alkali, dropt into it, will occaſion a blue precipitate. But, if it contain the muriated barytes alone, the precipitate will at

firſt

firſt have a yellowiſh caſt, which, after it has ſubſided for ſome time, will become perfectly white.

Lead may be detected by means of a ſolution of liver of ſulphur; for a ſmall quantity of that ſolution being dropt into the liquor which we wiſh to examine, if it contain lead, a browniſh precipitate will fall to the bottom, which, after it has ſtood for a conſiderable time, will acquire a dark hue.

A very effectual method of detecting metallic ſalts, and of freeing the ſolution from all heterogeneous mixtures, is, according to Dr Crawford, the following: Let the heavy ſpar be decompoſed, according to the proceſs recommended by Scheele and Bergman; and let a portion of the earth, thus obtained, be diſſolved in pure marine acid. Let a ſeparate portion of the ſame earth be rendered cauſtic, by expoſing it in a crucible to a red heat; and let diſtilled water be poured upon it when cold. A ſmall quantity of this barytic lime water, previouſly filtered, being added to the ſolution of the earth in the marine acid, if the mixture remain tranſparent, the ſolution is pure; but if not, it is contaminated with ear-

thy or metallic ſalts. In the latter caſe, let barytic lime water be ſlowly poured into the ſolution, till no farther precipitation takes place; and to the filtrated liquor, let as much marine acid be added as may be neceſſary to ſaturate the ſuperfluous earth. By this method, Dr Crawford thinks, the ſolution may be rendered perfectly pure.

Dr Crawford procured ſome ſpecimens of a mineral which is ſold at Strontian in Scotland, under the denomination of Aerated barytes, and was in hopes that the ſalt might be found with much leſs difficulty, by immediately diſſolving that ſubſtance in the muriatic acid. But both Dr Crawford himſelf, and Mr Cruikſhank, an ingenious chemiſt, who aſſiſts in conducting the operations of the chemical elaboratory at Woolwich, found, upon accurate examination, that this mineral really poſſeſſes different properties from the Terra ponderoſa of Scheele and Bergman. He thinks it probable, that the Scotch mineral is a new ſpecies of earth, which has not hitherto been ſufficiently examined.

Dr Crawford concludes with obſerving, that, in preparing the medicine which he uſed, a given

given quantity of water was firſt completely ſaturated with the muriated barytes; and to this ſaturated ſolution, a little exceſs of acid was afterwards added. The addition of this acid deprives it of a bitter taſte, and renders it more grateful to the ſtomach; but the quantity of the acid added muſt be very ſmall; for, otherwiſe, the ſtrength of the ſolution will be diminiſhed, by the precipitation of a conſiderable proportion of the ſalt. As this medicine, in large doſes, would unqueſtionably prove fatal, Dr Crawford earneſtly recommends, that after it begins to excite nauſea, vertigo, or any other diſagreeable ſymptom, the quantity ſhould not farther be augmented; and he thinks, that no adult ſhould venture, in his own caſe, even to increaſe the doſe beyond eighteen or twenty drops, without the advice, at leaſt, of a medical practitioner.

SECT. II.

Medical Obſervations.

I.

An Account of the Mineral Waters in the Portugueſe Iſland of St Miguel. *By* Dr William Gourlay, *Phyſician in Madeira.*

NEARLY ten leagues north-eaſt from Ponta-Delgada, the principal town in the iſland of St Miguel, there is a ſmall village, called the Furnace or Caverns, ſituated in a ſpacious valley, which is ſurrounded with high mountains. Theſe are compoſed of pumice-ſtone, and are covered with herbage, and a variety of evergreen trees and ſhrubs. The ſummits are formed into many ridges, which

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are ſeparated by valleys; and the declivities are interſected by gullies, furniſhed with ſmall rivulets, which, in their deſcent, exhibit many beautiful water-falls. The ſcattered ſtreams unite, and form a river, which winds through the valley. Its banks are ſhaded with fine poplars.

The ſoil of this valley conſiſts principally of pulverized pumice. Though poor, it is cultivated, and produces wheat, Indian corn, pulſe, and, in the damp ſituations, yams, and other roots. On digging a little below the ſurface, many cavities are found; even on walking over the ground, you are ſenſible of a hollowneſs.

Towards the ſouth-eaſt end of the valley, there is a ſmall elevation, called the Caldeiras, or Boilers. This elevation, which may be nearly a quarter of a mile ſquare, conſiſts of a number of hillocks, and the action of fire is every where evident. Here we diſcover a variety of ſtrata; pyrites, lava, pumice, marle, and clay of different colours, ochre, iron ore, and calcareous earth, mixed with alum and ſulphur.

There

There are a number of boiling fountains, many warm, and ſome cold mineral ſprings. The hot waters form ſeveral ſtreams, ſome of conſiderable depth. Theſe, in their courſe, bubble, ſmoke, and emit ſulphureous ſteams.

In a calm day, the vapour aſcends, in curling volumes, to a great height. As you look from the north, the varied green of cultivated fields, interſperſed with trees irregularly ſcattered in the incloſures, a river winding through the valley, a lake at a diſtance, and clouds of vapour riſing from the ſmoaking fountains, form a delightful proſpect, whoſe beauty is much heightened by the dark verdure, and bold projection, of the mountains in the back ground.

The largeſt of theſe boiling fountains, (or caldeira), the caldron, may be 25 to 30 feet in diameter. Not having a proper line plummet, I could not aſcertain its exact depth, though this is conſiderable. The country people, who have never ſounded it properly, perhaps indeed never ſounded it at all, perſuade themſelves it has no bottom. The water is ſcalding hot, and ever in a ſtate of ebullition. It continually emits a vapour, highly

ſulphureous,

ſulphureous, and ſmelling much like burnt gun-powder. The water depoſites a clayey ſediment, of a light blue colour. To the taſte it ſhews an aſceſcent pungency. At the diſtance of a few yards, behind a ridge of lava, there is another boiling fountain: It is in a cavity, at the bottom of a projecting rock, and is emphatically called the *Forga*, or Forge. Here the ſurface of the water is ſeldom viſible, being concealed by a very denſe ſulphureous vapour. The fountain boils with great violence, and a loud blowing interrupted noiſe. Mixed with vapour and ſteams, it throws up great quantities of a fine glutinous blue clay, which is ſcattered to a diſtance, and incruſts the rock and other neighbouring objects. The noiſe of theſe fountains, at a diſtance, reſembles the ſound of kettle-drums. Theſe two are the largeſt; but there are many other boiling fountains; and vapour iſſues in different places from the crevices in the rocks and banks. In ſome, where it is ſcarcely perceptible, on approaching the ear to the fiſſure, the noiſe of water boiling may be diſtinctly heard. From others, the water

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is ſquirted at intervals, and actually ſcalds thoſe who happen unwarily to come near them.

In many places, the ground is ſo hot as not to be ſtood upon, without inconvenience, and even pain. It is every where covered with crude ſulphur: A piece of bright ſilver, on being expoſed to the air, is immediately turned to a gold colour. Though many of the fountains are of a boiling heat, ſome are of a moderate temperature, and others are quite cold. The water of ſeveral is limpid and tranſparent, while that of others is turbid, and of a whitiſh or reddiſh hue, and generally depoſiting a red or blue clay. Near the fountains, cryſtals of alum and ſulphur are found in vaſt abundance and variety. Many of theſe are extremely beautiful; and, where the vapour exudes and iſſues from the chinks and fiſſures, ſome of the cryſtals are two inches long.

In ſome places, the ground is of a ſoft clayey conſiſtence; in others, it is looſe, dry, and crumbling. On digging, there iſſues from the hole a ſtrong ſulphureous ſteam, of ſuch heat, that you cannot keep your hand in it for above a minute. In a ſhort ſpace of time,

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the whole is either filled with hot water, or elſe covered on the ſides or bottom with a coat of ſublimed ſulphur and alum, reſembling hoar-froſt. Some hot fountains riſe cloſe to the edge of the river which runs through the valley; and, even in the middle of the ſtream, ebulition is, in ſome places, perceptible; and from theſe, ſteams and vapour riſe, as from the hot fountains. The river depoſites an ochrey ſediment on the ſtones and pebbles in its bed. In a few places, this ſediment is of a greeniſh colour, reſembling martial vitriol. The plants and buſhes on the banks are encruſted with ſulphur, alum, and other matters. Of the waters, the taſte is various: In ſome, it is that of a ſtrong impregnation of the vitriolic; in ſome, of the aerial acid; and, in others, it is aluminous, or ferruginous; and ſeveral are perfectly inſipid.

It is common for the country people to place their culinary utenſils over the hot fountains, or upon ſome of the ſteaming crevices, and thus ſave the expence of fuel in preparing their victuals. And inſtinct has taught the cattle to approach this place, and clear themſelves

themſelves of vermin, by ſtanding on the hillocks, amid the ſulphureous ſteam.

Near to the hot ſprings, and ſkirting a hill of pumice-ſtone, runs a ſmall ſtream of cold water, into which ſeveral cold ſprings, which riſe in the hill, immediately empty themſelves. In their ſhort courſe, they depoſite, ſome a pale yellow, and ſome a high-coloured ochrey ſediment. Their taſte is ſharp and aſceſcent, and their ſmell ferruginous. The pungency in ſome, is penetrating and exceſſive. The water ſparkles in a glaſs like champaigne.

Weſtward, at nearly a quarter of a mile diſtant, there are a variety of hot mineral ſprings, of the ſame nature, though not ſo large as thoſe juſt mentioned. Here ſome huts, with bathing-places, have been erected, and thither people reſort, to uſe the waters. In the ſame direction, and about a mile farther up the gulley, are ſome more hot ſprings, but of a moderate warmth. They, in all reſpects, reſemble thoſe already deſcribed.

The ground, and the plants in their vicinity, are covered with a yellow cruſt. The bathing huts, which were formerly erected here,

here, were a few years ago totally deſtroyed by the heavy rains. Nearly a mile ſtill farther weſtward, runs *Ribeira Sanguinolenta*, or Bloody River, ſo called from its deep red colour. On its banks, riſe a few cold mineral ſprings, of a ſtrongly ferruginous aſceſcent taſte and ſmell. The waters depoſite a whitiſh ochrey ſediment.

Beyond a range of mountains, and nearly a mile ſouthward, on the borders of a lake, are a number of other hot ſprings. Here the ſame variety and difference is obſervable, as among thoſe already deſcribed. Several of them boil violently, with a noiſe reſembling the hum of bees, and throwing up a thick glutinous blue clay, which is ejected, with bubbles and vapours, to a conſiderable diſtance. On the ſurface of many, there is an oily bituminous ſcum. Here alſo, as in the vicinity of the other fountains, there are a variety of beautiful cryſtals, and thick incruſtations of alum and ſulphur. Among the hot ſprings in this place, there is one which merits particular attention: It forms a baſon or pool, of about twelve feet broad, and twice as long;

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it boils with great force, and much noiſe. Cloſely adjoining to this hot pool, ſeveral cold ſprings riſe, from a bed of pumice: Theſe, though perfectly frigid, are in the ſame ſtate of ebulition as the hot fountains. They have a very ſharp aſceſcent taſte and ſmell, and are alſo highly impregnated with the aerial acid. Excluſive of thoſe which I have mentioned, there are a variety of mineral ſprings in different parts of the iſland.

I have to regret, that I was here only a few days, and that I was not furniſhed with a proper apparatus for making that ſatisfactory analyſis which it was much my wiſh to have made, and which never can be properly performed, excepting upon the ſpot. The extreme volatility of many of the component parts, and the almoſt inſtantaneous change in many of the appearances, muſt render every examination and proceſs, entered upon at a diſtance, exceedingly fallacious and inconcluſive. However, what few experiments it was in my power to make, I made: they will juſt ſerve to ſhew the parts predominant in the compoſition of the different waters. The numbers

bers refer to thoſe inſcribed on ſtones, which have lately been erected near the different fountains.

I. COLD.
II. MODERATE.
III. BOILING.
IV. STEAMING.

I. COLD.

a Aerial.
b Aerial ferruginous.
c Aerial hepatiſed.

II. MODERATE.

a Aerial.
b Aerial ferruginous.
c Aerial ferruginous aluminous.
d Vitriolic ſelenitic.
e Hepatiſed.

III. BOILING.

a Hepatiſed.
b Hepatiſed aluminous.
c Hepatiſed vitriolic.
d Hepatiſed vitriolic argilaceous.
e Hepatiſed argilaceous.
f Aerial.

IV. STEAMING.

a Hepatiſed.
b Hepatiſed argilaceous.
c Hepatiſed aluminous.

EXPERIMENT I.

No. 1. *Two cold ſprings.*—One tranſparent, a penetrating aceſcent taſte, and ſtrong ferruginous ſmell; depoſites an ochrey ſediment; turned purple by tincture of galls; gives a muddy

muddy precipitate with lime-water; ſparkles when ſhaken, and becomes perfectly inſipid.

EXPERIMENT II.

The other ſpring depoſites a bluiſh ſediment; the taſte an aceſcent pungency, which diſſipates to inſipidity on agitation; the tincture of galls does not produce any ſenſible alteration; lime-water gives a muddy precipitate.

EXPERIMENT III.

No. 2. *A hot ſpring.*—The water boils, and emits a ſtrongly penetrating ſulphureous and ferruginous ſmell; becomes black with tincture of galls; with lime-water, gives a cloudy precipitate, which falls to the bottom; with a ſmall portion of infuſion of radiſh, gives a bright red colour.

EXPERIMENT IV.

No. 4. *Another boiling hot ſpring.*—The water depoſites a blue ſediment; taſte, ſlightly pungent and auſtere; becomes muddy with

with lime-water, and effervesces with nitrous acid.

EXPERIMENT V.

No. 8. *A cold spring.*—The water deposites an ochrey sediment; an acescent ferruginous taste and smell; is changed to a dark colour by infusion of galls, and to a sensible red by infusion of radish.

EXPERIMENT VI.

No. 16. *A boiling hot spring.*—It deposites a blue sediment; emits a strong smell of rotten eggs; the taste sharply acescent, but becomes insipid on agitation; precipitates with lime-water.

EXPERIMENT VII.

No. 20. *A spring of moderate heat.*—Deposites an ochrey sediment; the sharp austere taste dissipates on agitation; forms a cloudy precipitate with lime-water; and gives a dark purple with tincture of galls.

EXPERIMENT VIII.

No. 13. *A ſteaming hot ſpring.*—Of a milky appearance, and bordered with incruſtations of a dark red and green; depoſites a white clayey ſediment, emits a violent ſteam, a ſharp, auſtere taſte, and ſtrongly hepatic flavour; becomes a light red, with infuſion of galls.

EXPERIMENT IX.

No. 30. *A cold ſpring.*—Depoſites an ochrey ſediment; the taſte and ſmell ſtrongly ferruginous, accompanied with a pungent acceſcency. On agitation, it emits bubbles, ſparkles, and becomes inſipid; precipitates with lime-water; is changed to red by infuſion of radiſh, and to purple, by infuſion of galls.

EXPERIMENT X.

No. 31. *A cold ſpring.*—Depoſites a ſandy ſediment; the taſte ſlightly acceſcent; ſparkles on agitation, and becomes inſipid; precipitates with lime-water, and becomes red with infuſion of radiſh.

Notwithſtanding

Notwithſtanding theſe waters have, for many years, been reſorted to by the inhabitants, for the cure of every ſpecies of diſorder, as well as for amuſement and pleaſure, yet the only accommodations for bathing, are a few thatched huts. In theſe, wooden reſervoirs are ſunk, two or three feet deep in the ground. They are filled by a wooden ſpout, and emptied through a plug-hole in the bottom. The warmth is tempered at the option of the bather, by the admiſſion of water from the cold mineral ſtream. As all ranks of people indulge in a very liberal uſe of theſe baths, and many even ſoak themſelves in them ſeveral times a day, we might be led to conclude, *a priori*, that ſuch frequent uſe of warm or tepid water muſt produce relaxation. This, however, is not the caſe; on the contrary, they act as a ſtimulant to the whole ſyſtem, exhilarating the ſpirits, and exciting appetite. When the waters, and particularly thoſe of the cold ſprings, are drank, they prove both laxative and diuretic, and alſo promote the excretion by the ſurface.

As the inhabitants were totally ignorant of the virtues of the cold ſprings, and alſo of

the uſe of the vapour-bath, I had an opportunity of making them acquainted with the properties of the former, and likewiſe of demonſtrating the active powers, and beneficial effects of the latter.

CASES.

A YOUNG man, aged twenty, had been attacked with a violent rheumatiſm, which brought on a contraction of the joints in his lower extremities, particularly the flexors of his knees. This was ſo great, as to bring his leg nearly in contact with his thigh; and his knees were actually touching each other; nor could he ſeparate them more than a couple of inches, and that only at particular times. In this unhappy ſituation, he had been confined to his bed for nearly five years. On his applying to me, I directed him to try the vapour bath. A chair was made for the purpoſe: it was ſo conſtructed, as to incloſe the whole body, leaving the head free at the top, where there was an aperture, which could at pleaſure be opened or cloſed, for the purpoſe of regulating

regulating the heat. This chair was placed upon the ground, where the ſulphureous exhalations iſſued. He remained ſeven minutes in it the firſt time, and was thrown into a profuſe perſpiration. On uſing it a ſecond and a third time, he experienced a very ſenſible relief: he could ſit out of bed, ſtretch his leg to an obtuſe angle with the thigh, ſeparate his knees, and even walk on crutches. He continued the bath three weeks; at the end of which, his family concerns called him home; but he went away much recovered, and was convinced of the very great efficacy of the vapour.

A PERSON who was affected with a Hemiplegia of his right ſide, and had loſt the uſe of his arm, had recourſe to the vapour-bath. It ſoon enabled him to lift his hand to his head, and afforded much relief in other reſpects.

Beſides theſe inſtances, which fell immediately within my own knowledge, I have been informed of ſeveral other well authenticated caſes, which demonſtrate the great efficacy of the waters, not only in rheumatic

complaints, but alſo in the moſt inveterate caſes of ſcrophula, and other diſorders.

A FEW years ago, a Portugueſe gentleman, aged about forty, from the iſland of Madeira, C——— E———, a man of family, and well known to many Britiſh reſidents on that iſland, was afflicted with a variety of ſcrophulous ulcers on different parts of his body, particularly about his neck and breaſt. The attention and ſkill of the moſt eminent of the Faculty had been long exerted in vain: the diſeaſe not only reſiſted, but ſeemed irritated by medicines. He at laſt took the reſolution of coming to St Michael's; and, by uſing the warm bath, in which he waſhed his ſores, while he at the ſame time drank the waters, he was perfectly cured in the courſe of a few months, and returned to Madeira, to the great ſurpriſe of his friends, in perfect health, and without any other remains of his former complaints, than the large cicatrices of his ulcers, then completely cured.

A YOUNG gentleman of family, alſo from Madeira, but whoſe name I do not mention, from

from motives of delicacy, laboured under an inveterate cutaneous affection in the head, with running ſores in ſeveral parts of his body, particularly about the back, was, by bathing in the waters, and alſo uſing them internally, completely cured in a few weeks.

An elderly prieſt, of a rather full corpulent habit, had, for ſome years, been affected with the gout in his lower extremities; he was, a few years ago, adviſed to uſe the warm bath; his complaint was removed, nor has it ſince returned.

Upon the whole, I think that there is much reaſon to believe, that theſe waters, both internally and externally applied, may be found very efficacious in a variety of diſeaſes. The vapour bath ſeems to be more powerful, and, in general, much preferable to the hot water bath; the volatile particles are more diſengaged, ſubtle, and active, when exhaled with and forming the vapour, than when they remain combined with and entangled in the water. The degrees of heat are alſo more eaſily regulated in the vapour, than in the wet bath.

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The cold ſprings contain a powerful chalybeate, with all the virtues which fixed air is poſſeſſed of; and, when drank, cannot fail of proving uſeful tonics in caſes of debility.

I conſider the morning as the moſt proper time, both for bathing in the waters, and uſing them internally. They ought to be drank immediately at the ſource, before the virtues have evaporated; the doſe at firſt about half a pint, which may be repeated in the evening, and, if neceſſary, may be gradually increaſed.

II.

II.

Deſcriptio Variolarum Epidemicarum, anno 1786, *Helſignoræ graſſantium, per* Chriſt. Jac. Theoph. de Meza, *M. D. &c. cum Andrea Duncan per Epiſtolas communicata.*

LICET morbus varioloſus tyroni quidem medico ſatis notus ſit, licet idem, ſingulis fere annis, imo ſemper fere, ſi non epidemice ſporadice ſaltem occurrat; ergo nec inde haurire poſſit argumentum, pro obſervationibus rarioribus, quæ a medicinæ cultoribus plurimi fiunt; præterquam, quod ab antiquioribus ſeculis, hoc pathema accuratiſſime deſcripſere, Rhaſes, Sydenham, Boerhaave, de Haen, Tralles, Tiſſot aliique, omni laude majores medicinæ principes, inutile tamen mihi haud videtur opus, hiſtoriam ejuſdem dare eo quo modo apud infantes haud paucos hoc anno obſervaverim.

Equidem

Equidem maxima laus in anteceſſores noſtros, maximaque utilitas in medicos noſtri ævi incidere debet; illorum obſervata veritate ac certitudine conſtabilita fuiſſe, veritas nunquam ſatis inculcari poteſt, dum ad hominum doctrinam pertinet, et præcipue in hac de qua hic agitur materia, ad horum felicitatem ſublunarem; haud parum intereſſe poteſt, num præceptores noſtri probe gnari aut ignari fuerint artis ſuæ, numve ſcripſerunt generis humani utilitate, numve tantum honoris et nominis cauſa, ut inter cæteros lucerent uti Luna inter ſtellas. Iterumque haud parum intereſſe debet, num magna exararint volumina, immortalis gloriæ ergo, ſi obſervationes ab iiſdem pro veris nobis traditas minime concordare cum magna naturæ biblia compertum eſſet. Etenim neceſſe eſt ſubtilis valde ac exculta horum foret Theoria, ni omni tempore, omni hora ejus falſitas in praxi apparet clinica; quæ autem inde inſurgeret utilitas? Nulla equidem quin magna confuſio ac rerum perturbatio inde oriretur, dum ille qui horum opera tanti ac quidem ipſi faceret, eoſdem pro oraculis, horumque verba pro Evangeliis haberet, preſſoque pede in illorum verba juraret,

ret, nec recedere ab horum doctrina methodoque medendi vellet; raro vel nunquam felix eſſet in arte Machaonica dum diverſa facies eſſet objecti ab iiſdem deſcripti, illiuſque clinico obvii indeque in clariſſimo noſtro ſeculo tenebræ adeſſent, nullibi damnoſiores equidem quam in arte ſalutari.

Si autem juniorem oportet medicum, annoſiorem magiſque expertum ſequi, præſertim quamdiu non licuerit eidem adire artis penetralia, quæ patere debent unicuique ſanitatis vitia emendaturo, noſtri quoque erit, horum effata prout reperta recta, aut minus recta, concordia aut minus concordia, cum propriis obſervationibus palam id omnibus facere, ut inde veritas magis confirmetur, et quamvis hæc veritas ab homine quidem minus docto vel experto quam qui primo hoc annotaverint, in lucem proferatur utilis ſemper erit. Etiam ſcintillæ lucent.

Experientia quotidiana conſtat non ſemper vel ubique varia ſubjecta in una eademque epidemica uno eodemque modo affici. Notum quoque eſt hanc differentiam equidem partim ætati, temperamento et corporis conſtitutioni partimque regimini ac normæ vivendi tribuendum eſſe. Id autem majori quidem attentione

dignum

dignum eſſe, quod hic morbus (quamvis variæ ejuſdem dentur ſpecies) in una eademque familia varios infantes varia ac diverſa ſpecie infeſtat, haud heſito affirmare. Nam quid in cauſa eſſe poterit, quod proles multiplex ab iiſdem parentibus genita, uno eodemque modo educata ejuſdemque ætatis fere, in eadem atmoſphera degens, eundemque reſpirans aerem, tam vario diverſoque modo afficiatur in eadem epidemia? In diverſis familiis vidi quoſdam infantes, optimis atque diſtinctiſſimis, quoſdam iterum, inter cæteros fratres, peſſimis ac confluentibus laboraſſe variolis.

Epidemia circa medium Aprilis caput attollere incipiebat, pergens in Auguſtum uſque; ceſſare tum iterum videbatur, per tres quatuor hebdomadas, verum circa Octobrem novas acquirebat vires, et peſſime in ægrotantes invehebatur. Ineunte epidemia morbus ordinario procedebat modo, niſi quod ægritudo acerbius infeſtaret robuſtiores pueros, febri enim laborabant inflammatoria fere. Debiliores vero, moliore carnium textura gaudentes, laſſitudine et ſumma mulctabantur debilitate, aliiſque ſymptomatibus equidem obviis in febre ſic dicta putrida,

putrida, noſtro ævo forſan non adeo frequenti ac quidem creditum.

Vidua tantum, inter omnes parentes quorum gnati mihi curandi tradebantur, conſtantiſſime affirmabat ejus filiam ſex annos natam, olim jam morbo laboraſſe varioloſo, quod et Van Doevern, aliique, nec non noſter Abildgaard et de Buchwald cum cæteris obſervaſſe perhibent. Verum enimvero cum variolæ quibus modo plectabatur ſatis magno eſſent numero, neque lenioribus ſymptomatibus ſtipatæ, de hac matris aſſertione haud ſine cauſa dubitandum puto.

Ut plurimum medici inter ſe conveniunt de contagio hujus morbi; quodque hoc miaſma per attactun præſertim communicetur. Neque ego cauſam trado de certitudine hujus effati dubitandi; tamen haud affirmare licet eam ubique ac univerſaliter veram eſſe. Dum quamplurimi pueri, quamvis inter varioloſos verſarentur, imo uno jacerent lecto, cum fratribus hoc morbo laborantibus impune quidem. Haud igitur incredibile videtur, quod præter miaſma atmoſphericum, diſpoſitionem etiam requiri ſpecialem in unoquoque individuo, ad hunc morbum ſuſcipiendum. Aliter enim vix

explicare

explicare poteſt quomodo tot pueri, cum variolosis ludentes immunes maneant a contagio per unum alterumve annum, tuncque demum morbo plectentur; neque videtur hanc diſpoſitionem in omnibus æqualem eſſe, ſed in uno majorem in altero minorem vim requiri ad morbum inducendum. Inoculatio rite quamvis et cum optimo jure fruſtra tamen inſtituta, favet quoque huic opinioni de diſpoſitione neceſſaria ad contagium ſuſcipiendum antequam morbus excitetur.

Prodromi in hac epidemica erant laſſitudo ſpontanea, ſopor, ciborum faſtidium, moroſitas, horripilationes cum inſequente calore, pulſuque exiſtente celeri, forti, ſæpeque duro, iterumque interdum parvo. Preſſiones aderant circa præcordia, reſpiratio profunda et ſuſpirioſa, oculi lachrymantes, capitis dorſique dolor. In nullo obſervavi connatus vomendi, ſive a ſuſcepto contagio, ſive a ſaburra, primas vias obſidente. Nulli inſultibus afficiebantur epilepticis, neque ante eruptionem, neque ſub morbi decurſu. Pauci fuere qui ſæpius tuſſitabant, indeque excitabatur dolor in pectore quem ejulatu ut plurimum indicabant. Continua in ſomnum propenſio cum rubore faciei,

quæ

quæ aderant in quamplurimis certiſſima dabant indicia variolas ex confluentium genere erupturas. Delirium et in diſtinctis et in confluentibus aderat, fortius vero in his quam in illis.

Hic ſtatus durabat tres vel quatuor integros dies; hiſce autem elapſis, variolæ omnino bonæ notæ erumpebant, recedentibus omnibus fere ſupra-dictis ſymptomatibus. Apud illos autem qui confluentibus paſſi fuere, hic ſtatus non ultra binos extendebatur dies. Alii quidem non pauci poſt quinque vel ſex demum dies, parva exanthemata rubra innumerabilia fere comparebant, faciem, thoracem, et brachia occupantia; et ut plurimum angina afficiebantur, majori gradu in confluentibus, minori in diſcretis. Salivatio qua adultiores confluentibus laborantes ut plurimum plecti ſolent, nec non dyſenteria, mictuſque cruentus a medicis in ſumma ſanguinis diſſolutione ſubinde obſervata in meis non aderant, dum malignitas tanta non erat. Et ægri meæ curæ commiſſi maxima ex parte non adulti ſed parvuli erant.

Circa ſextum ſæpiuſque ſeptimum diem, elevabantur papulæ, ſi benignioris naturæ, ac

pure replebantur. In malignioribus autem, e contra, partim manebant depreſſæ et confluentes, partim formabant in medio foveam maculis obſcuris vel nigricantibus diſtinctam, viſui equidem haud gratam.

Circa decimum autem diem, parva apoſtemata, ut Boerhaviano loquar more, incipiebant in benignioribus exſiccari ac formare cruſtas inter paucos dies dilapſuras, nulla cicatrice aut deformitate in cute relicta. Excipias velim maculas rubras quæ in quamplurimis octo dierum ſpatio prorſus evaneſcebant. Iterumque in aliis non niſi poſt tres integros diſparebant menſes; quæque majori corporis calore quam maxime in facie ac fronte rubebant.

Alio modo quidem obtinebat in confluentibus paſſis. Accidente enim ſuppurationis tempore, oculi omnino claudebantur, quo in ſtatu miſeris novem vel decem elabebantur dies. Cruſtæ tamen ſpiſſæ palpebras tegebant, ut vix diſtingueres orbitarum regionem a reliqua facie. Diu inſidebant cruſtæ deinde fœdas poſt ſe relinquebant cicatrices foveaſque, quod non tantum Veneris in Æſopicam mutabat formam, ſed etiam collum et brachia miro defœdebat modo; tamen nullum poſt ſe relinquebatur

quebatur vitium, cæcitas aut phthiſis puta, morbo varioloſo ſuperato.

Apud quoſdam qui benignioribus laborabant nec ſatis libera gaudebant alvo, dummodo et naturalem habebant averſionem a medicamentis apoſtemata et circa nucham et ad crura fiebant, quæ quantocius ad ſuppurationem ducenda erant, ut materia excedens ea qua natura monſtrabat via, evacuaretur; ulcera demum brevi ſanabantur.

Tres pueri confluentibus laborantes inter quatuor et ſeptem fere annos nati, magna cum voluptate cruſtas e facie edebant avulſas. In hiſce diarrhœa oriebatur levans, per octo fere dies durans; indeque ciborum appetentia inſatiabilis, immo et voracitas, inſurgebat. Equidem ſtimulo a cruſtis varioloſis, in prima calcina excitata, evacuationique alvinæ tribuenda.

Bini pueri, quorum unus quatuor annos, alter ſex annos natus, quique ab incunabilis fere fuere pervicaces, moroſi ac iracundi, ſuperatis variolis confluentibus, omnino characterem mutarunt innatum, quippe jam morigeri, alacres, docileſque habentur.

Curam quod attinet, quam diſtinguere placet in prophylacticam et curativam, ſimplex valde nec infauſta fuit. Prophylacticam voco quo omni modo prævenire ſatagebam ſymptomata quædam ante variolarum eruptionem. Huic ſcopo ſuadebam pediluvia tepida et quidem in pueris adhuc bene valentibus, caput lavare ac faciem frigida jubebam. Ambulatio, in hortis, aereque aprico quotidiana commendabatur, diæta ex vegetabilibus fructibuſque horreis. Placentas farinaceas, terræ poma, piſcium, caſei, ſalitaeque eſum interdicebam. Alvo conſtipatis lene porrigebam laxans, ne inde debilitarentur nimis. Interdum parum concedebam vini, aquae mixtum, partim ut vires ſuſtinerem, partim ut humorum corruptioni obviam irem, etenim morbum varioloſum potius ad putridos quam ad inflammatorios pertinere, ſi non in omni febri eruptiva, in ſecundaria ſaltem nemo inficias ibit. Requirit ergo methodum refrigerantem et dictam antiſepticam. Verum enimvero non obſtante lotione frigida faciei ac pediluviis tepidis, non ideo corporis ſuperior pars minore afficiebatur variolarum quantitate. Videtur lotionem frigidam a medicis commendari ad minuendam

ſanguinis

ſanguinis affluxum ad caput. An non inde potius talis affluxus inducendus? Stimulando enim frigus rubore tingit faciem, in quamplurimis hyberno tempore, quibus equidem in aeſtate pallor ſedat in ore.

Ingredientibus ſupra-dictis ſymptomatibus ex quibus concludere licebat, variolas mox erupturas, eidem diaeta inſiſtere jubebam: ea tamen differentia ut a vino omnino abſtinerent, cui ſubſtituebam ptiſanam ex pane toſto, decoctum avenaceum cum tamarindis et ſaccharo. In cibo concedebam poma prunaque cocta, ceraſa aceto condita, juſcula ex ceraſis ſiccis, et ſic porro. Ubi alvus erat adſtricta dabam pro aetate unciam dimidiam vel integram aquae laxativae veſpere, vel et mane parvum cochleare identidem donec alvus ſolvebatur. Quibus vero ſponte alvus quotidie libera erat, nulla porrigebatur medicina.

Si variolarum eruptio poſt quartum diem cunctabatur, balneo tepido totum imponere ſuadebam corpus, indeque cute laxata ex voto ſuccedebat eruptio; ubi major aderat orgaſmus optimo cum ſucceſſu, porrigebam paucas guttulas acidi vitriolici. In potum dabatur ſerum lactis tamarindatum. Erant qui prae ni-

mia aegritudine ante eruptionem lectum anxie quaerebant, eoſdem tamen ſubinde de die e lecto exire jubebam, meliuſque ſe inde habentes, ſponte et nullo ſuadente, lectum dein relinquebant per plurimas horas. Si pro circumſtantiarum ratione licebat, quotidie ſtrangula et calcitra aeri exponebantur libero, aegrotantibus interim in alio lecto decumbentibus; linteamenta et induſiae, ſaepius ſi poſſibile, debita cum cautela mutabantur, ſuppurationis tempore praeſertim, ne pus reſorberetur; interdiu feneſtrae patebant, nocte autem cum aer hic locorum ſit perfrigidus, claudebantur.

Debiliores, utique qui ſimul tacite delirabant, ubique pulſus erat parvus ac variolae ſpecifico ac putrido odore e longinquo percipiebantur, epiſtaſticis indigebant. Aceto lectus et cubicula identidem inſpergenda. Cortex cum camphora interne exhibendus. Qui oculorum viſu palpebris clauſis orbati fuere, fovebantur interdiu lacte tepido, cruſtis jam areſcentibus. Eodem modo fovebatur etiam facies, ac brachia, manuſque ſuppurationis tempore, jam lacte jam iterum decocto avenaceo. Oleum quod eidem ſcopo a quibuſdam commendatur

mendatur ſuſpectum mihi erat dum facile corporis calore ranceſcit.

In quibuſdam forfice vel lanceola variolae aperiebantur, ne pus ſanguini miſceretur, neque profundae remanerent cicatrices. Cum vero reperirem taedioſam moleſtamve eſſe hanc operationem ſive aegris ſive medenti neque inde vitari defœdationem cutis cicatricibus, in aliis eandem omiſi, qui tamen nitidiorem reportabant cutim a morbo quam priores. Anginoſi multum laevabantur a cataplaſmatibus emollientibus circa collum. Pauci vero diarrhœam neque moleſtam neque debilitantem nimis paſſi, cum fructu utebantur tinctura Rhei aquoſa, ad aliquot guttulas aliquoties de die.

Morbo ſuperato, ad tertiam quartamve vicem debitis intervallis, potio laxans porrigenda erat; hacque methodo laetus recordor, ex quamplurimis varioloſis, meae curae commiſſis nullum periiſſe, dum tamen hinc inde in urbe aliquot periere Octobris menſe praeſertim, nullo utentes medico partim, partimve horum conſilia negligentes, ſuoque more puſillos tractantes calore nempe hypocauſti, diaeta et regimine morbo haud adaptatis.

Liceat etiam pauca addere de inoculationis ſucceſſu apud quoſdam quorum parentes hanc operationem a me petiere. Prima fuit puella trium annorum, omnimodo uti apparebat ſana ac vegeta, ſexta inter fratres qui olim feliciter ſuperaverant morbum varioloſum ſpontaneum. Initio epidemicae pus collegeram varioloſum, ex infante benigniſſimas paſſa. Copia ſufficiente accedens ad inoculationis candidatum per duos dies jam huic operationi, per lene laxans praeparatum, methodo Gattiana acum pure madefactam ſub epidermidem introduco, eo brachii loco quo fonticulos inurere ſolemus. Emplaſtro innocuo tegitur locus. Diaetam vix memoratam commendo. Ad tertium diem, amoveo emplaſtrum ab hocque tempore ad decimum uſque diem alternatim modo cathartica modo pediluvia in uſum vocabantur. Puella quotidie aeri exponebatur libero, nulloque incommodo afficiebatur neque in brachio ulla comparebat mutatio. Deſperabam jam autem de inoculationis ſucceſſu, atque decimo tertio die moroſa fit, de frigore conqueritur, rubor apparebat in facie, cibos faſtidiebat, ſubindeque vomebat. Ad diem decimum ſextum prorumpuntur papulae in facie numero haud excedentes

excedentes viginti, plures demum in corpore quae ſtadia ſua accurate percurrunt, puella ſatis commode habente, quotidie alvus ſponte aperta fuit, ideoque bis tantum dein medicamine ſolicitabatur laxanti. Quaeri forſan licebit num hae variolae ad inſititias, an ad ſpontaneas, et contagio excitatas referendae ſunt?

Alter inoculandus puer erat ſanus robuſtus craſſiori præditus habito, frater alterius novem annos natæ debilis ac cacochymicae, a parentibus tribus hebdomadibus poſt præcedentem inoculationi deſtinatur. Cum vero timerem pro ſorore valetudinaria author eram ut non ſimul commorarent, at quidem fruſtra, ſurdo enim narrabam fabulam amboque uno eidem fato ſubjiciuntur, et exhibitis aliquoties laxantibus ambo inoculandi erant. Filo pure madido, uti fit, per levem ſatis inciſionem inſtituitur operatio, emplaſtroque tegitur vulnuſculum. Hic apparatus per binos relinquo dies, quo amoto inciſio ſanata videbatur. Circa quintum vero diem brachium puellæ rubere incipiebat. Sexto die linea alba circa inciſionem videbatur. Veſperam verſus margines palleſcentes conſpiciebantur. Ad octavum

vum diem algebat, cephalalgiam quæritur, dorſique dolorem, nauſeat ac vomitur. Ad decimum, febris adoritur, ſudorque erumpit. Ad undecimum, papulæ inſurgunt, alacriter ſe habet. Pluribus plectabatur maculis quam præcedens, ſed optimæ notæ. Vulnuſculum pus fundebat rite; non ultra verum octo dies a morbo ſuperato. Cura claudebatur leniori-bus laxantibus.

In fratre autem nulla fiebat mutatio circa vulnuſculum, neque ullæ comparerent variolæ. Inoculatio altera inſtituitur, vix ſed etiam ſine fructu, ſuadenti ut tertia vice inſtitueretur abnuunt parentes. Eritne hic puer omnino immunis in poſterum a variolis? Aderat nulla adhuc diſpoſitio ad contagium ſuſcipiendum? Eratne pus varioloſum mite nimis ad excitan-dum morbum in hoc ſubjecto? Experientia et tempus docebit. Pro mea opinione certo cer-tius hunc puerum aliquando variolas paſſurum puto, et quidem depopulanti epidemica malig-niori cujus miaſma majori vi agebit in puerum. Num recte ſentio aliis dijudicandum relinquo.

III.

III.

Account of the Good Effects derived from the Terra Ponderoſa Muriata, in a peculiar Species of Scrophula, occurring among Negroes in the Weſt Indies. By Dr James Clark, *of Dominica, Fellow of the Royal College of Phyſicians of Edinburgh, &c.*

WHEN I was about leaving Edinburgh, in May 1789, my worthy friend Dr Black, recommended my making trial of the Terra Ponderoſa Muriata, in cancerous or ſcrophulous caſes, if ſuch ſhould occur in my practice. Theſe diſeaſes are ſeldom to be met with in this climate; but a peculiar ſpecies of ſcrophula has occurred to me among negroes, in which I have adminiſtered this medicine with evident good effects. The ulcers are ſuperficial, and always in the courſe of the lymphatics in both extremities. A ſtring of glandular ſwellings, of the ſize of large beans, quite

quite moveable, are firſt formed, which afterwards inflame and break, and render an ichorous matter, like the real ſcrophula: but the glands about the throat are never affected; at leaſt ſuch has not occurred to me.

Soon after my arrival, I began the treatment of two ſuch caſes, both of which had reſiſted the uſe of mercury and decoctions of the woods, repeated at different times, even till a ſalivation was brought on, for more than a year. Peruvian bark was adminiſtered, and all kinds of external dreſſings were tried, to as little purpoſe; ſo that the negroes were abandoned as incurable.

I began with 15 drops of the ſaturated ſolution, in a cup of water and ſugar, three times a day, given to each of them; but ſoon increaſed it to double that quantity, and afterwards ſtill more; and was not a little ſurpriſed to find, that they were both cured in about four months time, and have remained ſo ever ſince, which is near a year ago.

One had had the diſeaſe about four years, and the other ſix, when the cure was begun. One brought the diſeaſe from the coaſt of Africa, and it broke out upon the other many years

years after he had left the coaſt. Neither of them had any venereal appearances, nor was it occaſioned by the relicks of the yaws.

I have another caſe under treatment for the ſame diſeaſe, which has reſiſted every remedy that could be thought of, for theſe ten years paſt. He was the moſt ſhocking object I ever ſaw; covered, almoſt from head to foot, with ſuperficial ulcers, as above deſcribed. Since he began the ſolution, which is about four months ago, he is evidently getting better. Although he does not take it regularly, and wants the advantage of freſh meat and a nouriſhing diet, yet I do not deſpair of his recovery.

Nothing is given with the ſolution; ſo that the effects muſt be attributed to it alone; and no dreſſings were uſed, but the powdered bark of the roots of the Acacia Mimoſa, to dry up the ichorous diſcharge, and prevent the flies pitching on the parts.

I have alſo begun this ſolution in a caſe of leproſy. But I am ſenſible it will require a very long trial indeed, to decide whether it will be uſeful in this diſeaſe or not.

Every

Every other medecine has failed in the cure of this moſt dreadful diſeaſe; for I have tried the Annolie (as the French call them) or ſmall Lizards, in ſeveral caſes, without the ſmalleſt benefit; ſo that I muſt doubt the accounts of ſo many cures being effected at St Domingo, and elſewhere, by eating of theſe animals.

It is juſtifiable to make trial of any remedy, that cannot prove at leaſt injurious, in a hitherto incurable diſeaſe; and I was led to the uſe of this ſolution, from the appearances of the ſpots, knots, and protuberances on the ſkin, in this diſeaſe, which point out the origin of it to be moſt probably near the extremities of the lymphatics.

IV.

IV.

Hiſtory of a Caſe of Dropſy, cured by the uſe of the Infuſum Nicotianae. *By* Dr Thomas Garnet, *Phyſician at Harrogate.*

APRIL 8th 1790. H. P. (aged 64) has for many years been in a poor ſtate of health, and ſubject to nervous and dyſpeptic ſymptoms; which laſt are frequently attended with great pain in the ſtomach and bowels. She has frequently been afflicted with the gravel, and has paſſed ſeveral ſmall calculi, though not very lately. About a fortnight ago, ſhe felt her ſtomach complaints much worſe: her appetite became bad; her legs, thighs, arms, and abdomen, began to ſwell conſiderably. Her legs pitted on preſſure. She has, at preſent, great difficulty in breathing, eſpecially in an horizontal poſture, and ſtarts frequently in her ſleep. Her pulſe is 86, and weak. For ſome time paſt, ſhe has made

made very little water; and, at preſent, not more than half a pint in twenty-four hours.

Sumat. gutt. xxx. infuſ. Nicotianae (Fowler's) mane et veſp. ex cochl. ii. miſturae ſequentis:

℞ Aquae menthae piperitid. unc. v. ſs.
Spt. lavend. comp. unc. ſs.
Confect. aromat. drach. i. M.

April 10*th*. Took the medicine twice yeſterday, and once this morning, as directed. The two firſt doſes produced conſiderable nauſea, with ſtupor, and giddineſs in the head. Has made nearly 3 lb. of water during the laſt twenty-four hours.

11*th*. The infuſion, this morning, produced conſiderable nauſea. Pulſe as uſual. Made about 4 lb. of water during the laſt twenty-four hours. Swelling of the abdomen conſiderably diminiſhed; that of the legs not much.

12*th*. No nauſea from the medicine. Has made more than 5 lb. of water during the laſt twenty-four hours.

13*th*. Much nauſea, both laſt night and this morning. Quantity of water nearly as yeſterday.

yeſterday. Swelling of the abdomen and arms diminiſhed; that of the legs much the ſame.

14*th*. Little nauſea. Has made rather more water than yeſterday.

15*th*. No nauſea from the medicine. Made near ſix pints of water during the laſt twenty-four hours. Ordered to bandage her legs with a flannel roller. Legs not ſo much ſwelled as yeſterday.

17*th*. Made nearly the ſame quantity of water, on each of the two laſt days, as on the 15th. Swelling of the legs nearly gone.

19*th*. Makes about the ſame quantity of water, or rather more. Swelling of the legs, abdomen, and arms, quite gone. The medicines were omitted; but, as ſhe complained ſtill of great weakneſs, and want of appetite, ſhe was ordered to take the following medicine:

℞ Tinct. amar.
Vin. chalybeat. aa. unc. iii. M.
Sumat cochl. bis in die.

From the uſe of this medicine, ſhe grew gradually better; and has ſince enjoyed a pretty good ſtate of health.

V.

Hiſtory of a Caſe of Syphilis, cured by a very ſimple Mercurial Preparation. *By* Dr Thomas Collingwood, *Phyſician, Sunderland.*

NO diſeaſe, of ancient or modern date, has excited ſuch a number of writers to exhibit their abilities, or diſſeminate their noſtrums abroad in the world, as the Lues Venerea. Aſtruc has beſtowed a great part of his uſeful work on the authors, and their practice, in that diſeaſe. He has alſo offered, at large, his ſentiments on the ſeat, cauſes, and method of cure. Since the time of Aſtruc, Swediaur, Simmons, Hunter, and many others of leſs note, have written on this diſeaſe; and, although their theories are very different, yet mercury has been recommended as the grand ſpecific in every ſtage, and has been applied in all the different forms that fancy

fancy could ſuggeſt, with various ſucceſs. The following caſe, I flatter myſelf, will throw new light on the theory; or, at leaſt, from attentive conſideration, illuſtrate that part of the ſyſtem primarily affected. And I hope, alſo, that the method of cure, from its ſimplicity, will merit a future trial.

Mr T. F. an eminent practitioner, a ſober, ſteady man, about thirty-ſix years old, delivered a woman, who, he afterwards learned, laboured under the venereal diſeaſe. The child died three weeks after, exulcerated over the whole body. My friend had a ſcratch between the fore-finger and thumb of the right hand, when employed, which continued livid and inflamed for four weeks. Being of a timorous diſpoſition, and having a rooted averſion to the above diſeaſe, he communicated his ſuſpicions to me, which I endeavoured, but in vain, to treat with ridicule. Five days after I was ſent for, the axillary glands of that ſide felt uneaſy and enlarged. A foreneſs of the pectoral muſcles, and oppreſſion of the breaſt, were alſo felt. He complained of an uneaſineſs about Poupart's ligament,

and a tightneſs in both groins. As medical men are the worſt patients to deal with, when ailing, I adviſed a ſlight doſe of phyſic, and would have bled him, had not his pulſe been weak and ſmall. In a few days, a knotty hardneſs was felt down the inſide of the right thigh, accompanied with pain, ſtiffneſs, and inability to walk, when firſt riſing from bed. This knotty tightneſs ſunk beneath the muſculus vaſtus internus, at its inſertion on the lower condyles of the os femoris, and came out again in the region of the ſemi-membranoſus of the tibia, diſtributing itſelf on the inſide of the leg, to the foot. In the whole length, hard painful knots might be felt, about the ſize of peas. Sometimes he could walk as eaſily as if not afflicted; again, almoſt inſtantaneouſly, he was taken with violent ſpaſms, pain, and inability to walk.

Theſe affections continued for ten days; when, being fatigued with a long journey, and having to ſit in a houſe, with a ſtone floor, all night, with a woman in labour, he was attacked with pains in his ſtomach and bowels, which terminated in a colliquative diarrhœa, and great debility. This complaint

continued

continued obſtinate, notwithſtanding the moſt powerful medicines were perſiſted in for a fortnight, until he was unable to ariſe from bed without help. Every copious alvine diſcharge was attended with faintneſs and laſſitude. During this period, a laborious reſpiration, and the ſoreneſs of the muſcular parts of the breaſt, and glands of the axilla, continued. The muſcles of the lower extremities became very flacid; and the knottineſs and tenſion of the thigh and leg in ſome meaſure ſubſided. Excepting hectical ſymptoms, which kept off, there were few that were flattering.

I conſulted with my late worthy friend, Dr Aitken of Edinburgh, who recommended aſtringents. Before I was honoured with his anſwer, the diarrhœa was ſubdued by large doſes of opium, decoctions of elm-bark, elixir of vitriol, and the Peruvian bark. A flannel waiſtcoat, and milk diet, were recommended by another phyſician.

My friend ſtill inſiſting that his caſe was venereal, and as he had, ſince delivering the above woman, been employed by a man labouring under a confirmed pox, of many

years ſtanding, which man was ſaid to hold criminal converſation with her, I began to give ſome ear to his tale. Indeed, a multitude of circumſtances tranſpired in favour of the allegation; and, as he began to gather ſtrength, from the ceſſation of the diarrhœa, and the glandular ſpaſmodic affections, we had recourſe to mercury.

I ſhould have obſerved, that, immediately on the diarrhœa ſupervening, an eruption of a pale red, or iron coloured ſpots, was diſtributed over his whole body, but more particularly on his breaſt, where the ſpots were larger, and of a ſhining red. This efflorescence gradually diſappeared in the courſe of twenty days.

With the above, it will be neceſſary to mention another ſymptom, not commonly obſerved in this diſeaſe, which followed the looſeneſs, viz. a violent pain about the os petroſum, tinnitus aurium, deafneſs, and a continual gnawing, and excruciating ſenſation at the inſertion of the ſplenii capitis, into the os occipitis. The pain, deafneſs, and tinnitus aurium, were the laſt complaints that left him.

As

As my friend was of a very irritable habit, and obliged to attend buſineſs at all hours, we thought the mildeſt mercurial the moſt proper. And, as I had ſufficient proofs of the efficacy of the pulv. hydrarg. ſacch. viz. crude mercury, rubbed down with double the quantity of white ſugar-candy, ten grains of this powder were taken twice a day. He continued this for a fortnight, with conſiderable remiſſions of pain, tenſion, &c. It was continued a month longer in the ſame way; then once a day; and once every other day, for another month. Two years have elapſed, and he has had no return of the diſorder *.

From what has been advanced in this caſe, Boerhaave's ingenious, but abſurd theory, of the ſeat of the diſeaſe being in the cellular

* I am convinced, from repeated trials on all the different prepararions of mercury now in vogue, however tortured by fire, or combined with other bodies, that the mildeſt mercurial, taken immediately into the abſorbent ſyſtem, will perform permanent cures, and with leſs hurt to the patient's conſtitution, than any other article; and, during the cure, a perſon may follow his ordinary employment without danger.

and adipoſe membrane, muſt fall to the ground †. His method of cure, by melting down the adipoſe fat by ſalivation, &c. is, in my opinion, equally ridiculous; as my patients, under a courſe of mercury prepared in the manner mentioned above, grow fatter, ſtronger, and have their conſtitutions renovated, while at the ſame time the diſeaſe is completely eradicated.

† *Vide* Boerhaave's Eſſay on the Venereal Diſeaſe.

VI.

VI.

Obſervations on the Uſe of Elm Bark, in ſeveral obſtinate Diſeaſes. *By Dr* Thomas Collingwood, *Phyſician, Sunderland.*

THE inner bark of the elm tree, (*Vid.* Dr Lyſons in the Medical Tranſactions, vol. II. p. 203), I have tried in a number of cutaneous diſeaſes, with ſucceſs. It has performed many real and permanent cures, and gave relief in ſome obſtinate, and otherwiſe incurable diſorders.

At firſt ſetting out, I confined its uſe to cutaneous diſeaſes, ſtrictly ſo called; but its effects were ſo flattering, that I ſoon extended it to various other affections. In ſcalds, burns, eryſipelatous affections, and other excoriations of the ſkin, in decoction and ointment, mixed with hog's lard, and a ſmall quantity of bees wax added, it was productive of great benefit.

The

The glutinous lubricating nature of this decoction and ointment, muſt have produced theſe effects, from excluding the external air, which is more than half the cure in all wounds and excoriations of the ſkin. The tenacious lubricating nature of the decoction, ſuggeſted its uſe in diarrhœas, dyſenteries, and all abraſions of the bowels, where the mucous membrane was robbed of its covering. I gave it in the above complaints, and it ſucceeded beyond my moſt ſanguine hopes.

In the waſting looſeneſs of children, whether from a diſpoſition to ſcrophula, from teething, or whatever unknown cauſe, I always found it of ſervice. A little toaſted rhubarb was added to the decoction in ſome caſes; in others, ſmall doſes of opium, and ſometimes ſpirits of hartſhorn, or other alkaline and abſorbent medicines.

In child-bed, women, who, during pregnancy, are often ſubject to obſtinate conſtipation of the bowels, and, where a debilitating diarrhœa ſupervenes, on the third or fourth day after delivery, it is of infinite ſervice, although the patient ſeem ſo much exhauſted, that ſhe cannot, in all human probability, ſurvive

ſurvive a few hours. The firſt doſe gives relief, a repetition retards the alvine diſcharge, and acts as a cordial and ſedative to the languiſhing debilitated patient.

During twelve years extenſive buſineſs at home and abroad, I have had a great number of opportunities of trying the efficacy of this bark; and, as I have always been partial to ſimples, cannot help giving it due praiſe.

I could give a number of caſes, to corroborate my obſervations on its particular efficacy, but have ſelected a few, not from any thing peculiar in thoſe related, but as a ſpecimen of the whole.

Case 1. Mary Tale, aged 21, of a thin ſlender make, and apparently prediſpoſed to phthiſis, was, on the third day after delivery, attacked with diarrhœa. She had a looſe ſtool almoſt every half hour, attended with fainting. After having paſſed upwards of twenty looſe ſtools, and being very languid, I was called, and immediately ordered two table ſpoonfuls of the decoction after every looſe ſtool. The quantity and quality of the diſcharge altered after the firſt doſe; and after

ter it was continued for ſix hours longer, the looſeneſs abated. The ſaline mixture was given, with equal parts of the decoction, for a few days, and the patient was ſoon reinſtated in her former health.

CASE 2. T. Kirſop, a boy, aged ſeven, but remarkably tall and thin for his age, was taken with obſtinate diarrhœa, which reduced him to a mere ſkeleton. A number of anthelmintic febrifuge medicines, plaſters, clyſters, &c. were adminiſtered, without producing any ſalutary effects. A table ſpoonful of the decoction was ordered, after every looſe ſtool; the ſtools leſſened in number and quantity, and in five days totally ceaſed, no conſtipation enſuing. Not the leaſt appearance of worms was perceived during the cure.

CASE 3. A. R. aged 68, had long been afflicted with flatulency, from ſedentary employments. A waſting diarrhœa, accompanied with lientery, came on. Many medicines were ordered by his apothecary, which uſed to ſucceed in obſtinate caſes, but here they were given without effect. On being called,

I ordered the decoction. It was perſiſted in for a few days, and ſucceeded; but although the diarrhœa often returned, eſpecially after being much afflicted with flatulence, the decoction never failed to check the diſcharge, and bring him to a regular ſtool.

Case 4. Mr S. Story, a wealthy farmer, aged 69, had a ſcaly eruption over the whole body from his infancy, ſometimes rougher and ſmoother by turns; but from extraordinary exerciſe in a long journey, in wet damp weather, with frequent change of beds, the eruption almoſt totally diſappeared. This diſappearance was ſucceeded by pain in the ſtomach, cardialgia, and a vomiting of bilious and acrid matter, with muſcular ſpaſms over the whole body, loſs of appetite and emaciation, ſucceeded by diarrhœa. A bliſter on the pit of the ſtomach being premiſed, the decoction was given after every looſe ſtool, with muſtard whey for common drink. An eruption, in three days, appeared on the breaſt, and in two days more, over the whole body, and he gradually recovered. The decoction was deſired to be repeatedly uſed. Ten

years

years have now elapſed, and he continues to enjoy perfect health.

I could mention a number of other caſes, but it would only be a repetition of ſimilar facts.

Dr Lyſon's receipt for its preparation, is that which I uſed often, though there were ſeaſons and ſituations when it could not be got green. The dried bark did not make ſuch a glutinous decoction, yet it was equally efficacious, and in ſome caſes preferable. The green bark always anſwered beſt in the ointment, from its tenacious gluten being eaſily ſeparated from the fibrous part, the aqueous part exhaling in the preparation.

In practice, now, I ſeldom uſe the green bark internally, as generally, every ſpring and autumn, I lay in my half year's ſtock.

From its real efficacy, mildneſs, and the eaſe of procuring it, I have now claſſed it among my vegetable ſimples, next in order to the Cortex Peruvianus; and can ſay, from experience, that in caſes ſimilar to thoſe related, it is as much a ſpecific as the Peruvian bark in intermittents; and, were it more in uſe, eſpecially in hot climates, where diarrhœas, dyſenteries,

ſenteries, and fluxes from diſeaſed livers, and other acrimonious cauſes, are ſo prevalent, I am inclined to believe it would ſuperſede many pompous and expenſive medicines.

Indeed, I have often recommended to my medical friends the uſe of it; but few have thought proper to give it a fair trial. Mr Hopper, a very diligent young man, and lately an apprentice of mine, has tried it for three ſeaſons, in the cold climate of Greenland; and, I am authoriſed by him to ſay, that it ſucceeded in a number of caſes.

VII.

VII.

Account of the Abſtraction of an uncommon Quantity of Water from the Bladder, by the Uſe of the Catheter. *By Dr* John Wilſon, *Phyſician at Spalding.*

MR HOWARD, a gentleman about 40 years of age, and of an active diſpoſition, ſent for me about the end of the year 1785. He had been ſeized with the uſual ſymptoms of iſchuria, as he imagined, from drinking old ale. He felt conſiderable weight and oppreſſion, accompanied with pain, in the region of the pubes; the deſire to make water was frequent, but ineffectual. He was at times ſick, and troubled with borborigmy; his mind was much agitated and alarmed for the iſſue of his complaint. The belly was coſtive, his pulſe rather fuller than in a ſtate of health. He complained of thirſt; he had frequently paſſed ſand with his urine, and had been

been before affected with the diſeaſe, from drinking ſtale beer. From conſidering the caſe, I had little doubt of its being owing to ſpaſm; and the uſe of the remedies which I employed, favoured the ſuppoſition. Bleeding, fomentations, glyſters, the warm bath, mucilaginous drinks, and, to remove increaſed irritability of the ſyſtem, ſmall doſes of laudanum, were frequently given. By diligently purſuing this plan, he made a conſiderable quantity of water, and paſſed it with eaſe. The abdomen, however, ſtill continued ſwelled, particularly on the right ſide; and he complained of its being ſore when touched. As there ſtill appeared to be a conſiderable quantity of water in the bladder, it was thought prudent to introduce the catheter, which gave him immediate eaſe. He continued to paſs water well for ſeveral days, and I gave over my attendance. A neighbouring apothecary viſited him daily; and I was deſired to ſee him again, from his having had a return of his complaint. He had then laboured under his diſeaſe ſeveral days, and I found the abdomen very much diſtended. The ſame plan had been purſued, but not with the

ſame advantage. The pain and ſoreneſs was become general, and a degree of ſtupor had come on. The extremities were cold and clammy, the pulſe feeble and quick. No time was to be loſt. The catheter was attempted to be introduced; but the reſiſtance at the neck of the bladder was ſo great, that we were obliged to deſiſt. My friend Dr St Clare was called in conſultation; he propoſed the catheter; and, after many efforts, and giving the patient a good deal of pain, he ſucceeded. To our aſtoniſhment, no leſs than ſixteen pounds and two ounces of bloody water were drawn off. The patient was immediately relieved from his pain; but the ſtupor increaſed, and, after lingering for twenty-four hours, he died. My reading does not furniſh me with an inſtance of ſo large a quantity of water being collected in the bladder, nor perhaps would it readily be believed, *a priori*, that it was capable of ſo great a diſtenſion. The caſe, I think, affords this uſeful leſſon, never to truſt too long to remedies, but to adviſe an early introduction of the catheter.

VIII.

VIII.

A curious Caſe of a Luſus Naturæ. By Dr Knox, *of the Iſland of Tortola. Communicated to Dr Duncan by Dr Matthias Gahagan of Grenada.*

EARLY in the morning of the 20th of July 1789, I received notice, (along with ſome other gentlemen of the Faculty), informing me, that a negro woman had juſt before been delivered of an infant, of a very extraordinary and uncommon appearance, and requeſting that I would attend and examine it. On view, it appeared to be a monſtrous production; and as, at that time, the public curioſity was much excited, and the accounts which have been ſince circulated, of its figure and appearances, are in general erroneous, it may not be improper to inform the public, of the actual ſtate of this Luſus Naturæ, as it

appeared on an external view, and on diſſection.

The external view exhibited an appearance, which, to one unacquainted with productions of this nature, was truly extraordinary. It had two heads, perfectly well formed, covered with very black hair, in greater quantity than is uſual with infants at the time of birth. The features of the two faces were regular; they had an exact reſemblance of each other; and, had it not been, that the ſingular circumſtance of a double head conveyed a horrid idea, the two faces might have been conſidered as pleaſing ones. Behind the two heads, the firſt object which preſented itſelf, was a double arm, formed by what may be conſidered as a junction of the left arm of one fœtus, with the right of the other. They were firmly united from the articulation at the ſhoulder to the elbow, but had each a diſtinct humeral bone, both of which were articulated to a concavity of the ſcapulæ, united ſo as to form an appearance of one ſhoulder. Theſe arms, (or this double arm), were extended and erect, ſo as to appear over the heads; and from the elbow to the extremities

tremities of the fingers, they were ſeparate, diſtinct, and well formed. Two arms appeared, which were perfect in every reſpect. The breaſt was very broad, and a little indented in the middle; from thence downwards little difference was to be perceived in the figure of the parts, from thoſe of a well-formed new-born infant. The lower extremities were ſingle, and perfect in appearance; and there was a ſingle funis.

The appearances on diſſection were not leſs extaordinary, than thoſe exhibited on an external view. On removing the integuments, one ſternum only was diſcovered, and which had no other uncommon appearance, than that it was much broader than uſual, was indented in the middle, and wanted the xiphoid cartilage. It was articulated on each ſide by the intervention of the cartilages to the ribs, which were perfect in number, and ſent off from two ſpines. Theſe ſpines were ſeparate and diſtinct from their origin at the neck, to their extremities, and did not terminate in any thing like an os ſacrum or coccygis, both of which were entirely wanting.

The ſternum being removed, on the firſt view of the contents of the thorax, there ſeemed to be only the viſcera of an individual; but, on opening the pericardium, which was ſingle, it was found to contain two hearts, one of them of a proper form and ſize, having its auricles, ventricles, and veſſels, in a perfect ſtate; the other ſmaller and imperfect; its arterial veſſels were ſmall and contracted, and the left auricle and pulmonary vein were wanting. It was at firſt conceived, that the lungs conſiſted only of one pair, as each lobe had the pulmonary artery from a diſtinct heart; but, upon a further examination, two other lobes were diſcovered, ſituated under the firſt; they were ſmall, compreſſed, and in a very imperfect ſtate, and appeared to want the proper veſſels.

On opening the cavity of the abdomen, the firſt object which preſented itſelf, was a liver of a very uncommon ſize and ſhape, ſtretching from ſide to ſide, ſo as to fill both the hypochondria. It appeared to be double, poſſeſſing two gall bladders, and two ſets of biliary veſſels. Under the liver, were found two diſtinct

diſtinct ſtomachs, ſituated in a concavity of the liver, on each ſide. From each ſtomach proceeded a diſtinct duodenum, into each of which the ductus communis on each ſide opened itſelf, in the uſual manner. The inteſtines were double and diſtinct, and united by a ſeparate meſentery to each ſpine. They continued in this ſtate throughout the duodenum, jejunum, and more than two thirds of the ilium; they then united. In their progreſs an inch or two further, they ſeemed only ſimply to adhere, and then, ſuddenly inoſculating, they became one gut, and continued in that ſtate till the rectum terminated in the anus. There were two ſpleens, one ſituated under each ſtomach; the omentum was ſmall and ſhrivelled, and it could not be diſcovered if it was originally double. The kidneys were double; one pair were perfect; each had its ureter, which opened, in the uſual manner, into the bladder; the other pair were ſmall, compreſſed, and imperfect, the ureters being wanting. The bladder was ſingle, and in every reſpect perfect. The pelvis in which the bladder, &c. were placed,

was formed by an union of the two ſpines at the laſt two vertebræ, and the oſſa innominata. The pubis was ſmall, and not perfectly formed; and the os ſacrum and coccygis, as has been already obſerved, were wanting. On a further examination, it was diſcovered, that each trachea was affixed to a diſtinct lobe of the lungs, and each œſophagus opened in a diſtinct ſtomach. This creature had the genital parts of an individual female.

The throng of people whom curioſity had brought to view this production, rendered a more minute inſpection impracticable; but the appearances already deſcribed, were the principal which were obſerved, or which it is neceſſary to mention. To enter into a general conſideration of the ſubject of monſters, and the controverſies which have agitated the learned with reſpect to their origin, would, on the preſent occaſion, be ſuperfluous, nor could it convey any new information to profeſſional men, for whom this hiſtory is principally intended. It will therefore ſuffice to obſerve, that caſes of this nature are by no means new, or very uncommon.

Many

Many are related in the Philoſophical tranſactions, and memoirs of the learned Societies in Europe; and the ſubject has been accurately inveſtigated by many medical and anatomical writers, and particularly by the learned Morgagni, in his excellent work de Sedibus et Cauſis Morborum.

IX.

IX.

Hiſtories of different Caſes of Amputation, &c.
By Mr William Rait, *Surgeon in Dundee.*

THE following hiſtory, I think, marks, in a pretty decided manner, the propriety of amputation in ſimilar caſes.

William Spink, aged ſeventeen, of a ſcrophulous habit, at the age of about eight, fell from a high ſtair. He began gradually, after that, to loſe the ability of his leg; the knee ſwelled, and the tendons in the ham ſoon became very much contracted. In ſhort, the lad, in a few years, became a downright cripple. He conſulted me; and, from the firſt inſpection, I gave it as my opinion, that he had very little chance of ſurviving any length of time; but that I conceived, if he had any, it depended ſolely upon immediate amputation. The lad, his mother, and friends, ſeemed almoſt inſtantly

inſtantly convinced of the propriety and neceſſity of the operation, and readily agreed to it.

Several ſurgeons, alſo, to whom I imparted my ſentiments, coincided with me in opinion. One medical gentleman, indeed, of much experience, and for whom I have the higheſt reſpect, heſitated, upon the very rational principle, that it was evidently a ſcrophulous caſe, of long ſtanding; and that, although the ſeeming evil might be done away, yet the cauſe might probably be ſo riveted, as to continue to exiſt in the habit, and conſequently prevent a radical cure. But I oppoſed to that mode of reaſoning, 1*ſt*, That the patient was evidently and daily loſing ſtrength and ſubſtance: 2*dly*, That, from the time of life, a change might be about to take place in the ſyſtem, which the taking off ſuch a cauſe of great and conſtant irritation, might tend to forward, and to favour: And, 3*dly*, That the lad himſelf was ſo fully convinced of the propriety and neceſſity of it, from his own feelings, and the miſery of his ſtate, and ſo much determined to ſubmit to the operation on the day I had appointed, that I was fully perſuaded

ed the diſappointment would have proved to him a very dangerous one, and a much more ſevere ſhock than the operation. I therefore, on the 19th of January 1791, amputated above the knee, after the manner recommended by the very accurate Mr Bell, whoſe mode I prefer to Mr Allanſon's, for the reaſons very fairly ſtated by Mr Bell himſelf, in his Syſtem of Surgery; which reaſons I hold to be highly ſatisfactory, and, at leaſt to myſelf, perfectly convincing.

The knee, on diſſection, amply verified my firſt predictions. The cartilages forming the cavity of the joint were exfoliated, diſſolved in the pus, or probably corroded by it; at any rate, they were obliterated, and the naked bones were rough and black. The matter contained, of which there was a very large quantity, had much the appearance and conſiſtence of curds in whey newly broken, without being preſſed.

Indeed, it is aſtoniſhing, from ſuch a collection of matter, and under ſuch circumſtances, that the boy had not, long before, fallen a victim to an undermining hectic.

However,

However, I do believe that period was faſt approaching, or at leaſt was very certain. I took up the femoral trunk, and a large diverging branch, with the tenaculum: two other ſmaller arteries (in the upper and inner part of the thigh) were ſo contiguous, that I was obliged to encircle them with a needle. Little or no ſuppuration had taken place on the ſeventh day from the operation, the firſt of inſpection; neither did the parts look by any means to my liking. But I plied him with bark, porter, generous diet, a glaſs of wine, &c.; and, on the 26th January, or ſecond dreſſing, the former appearance was all done away, and, in its ſtead, an uniform red ſurface of healthy granulations had taken place; only the parts remained lax and flabby, which I, in ſome meaſure, remedied, by a retaining adheſive plaſter and bandage.

As a proof of the ſuperiority of the tenaculum, I found the ligature of the large branch on the ſecond dreſſing, and that of the femoral trunk, on the third; that with the needle never ſeparated, but was cut out.

The boy recovered fleſh and ſtrength daily, and is now in perfect health.

One

One circumſtance, however, I cannot omit mentioning: Owing, I imagine, to the flabbineſs of the muſcles, hanging downwards and backward from the bone, and from a ſmall portion being bared by the knife or the ſaw, two ſmall exfoliations took place, the one the 3d April, and the other about a week after. My chief reaſon for troubling you with this caſe, is, that it wears on the face of it, the motto, "Nil deſperandum," when we conſider, that the patient laboured for nine years under a moſt diſtreſſing lameneſs, whether from the effects of a fall, or the ſcrophulous habit, or both combined, with a conſtant emaciating diſcharge, from not leſs than twelve ſores, two of which, in the knee, evidently emitted a ſanies from its cavity. I would alſo wiſh to hold forth this doctrine (the reſult of a good deal of practical experience) to young practitioners, that amputation, in caſes of ſcrophulous white-ſwelling, as it is called, or under whatever other name it may be known, and alſo in ulcers of long ſtanding, and which have induced great debility, even hectic, our prognoſis may be much more favourable than

than in general it may in the athletic and healthy, where amputation is neceſſary, from accidental cauſes.

The following is a remarkable inſtance of recovery, which I beg leave to communicate:

His Majeſty's ſhip, Southampton, being alongſide the wharf at Port-Royal, Jamaica, for the purpoſe of careening, in November 1777, William Thorn, a young lad, ſervant to Lieutenant Hill, after the fatiguing heat of a very ſultry day, took the recreation of bathing, and ſwimming about the ſhip. Upon his returning to the boat, (where his clothes lay), then lying conſiderably within the ſhip's ſtern, with its fore part on the ground, and ſtern in pretty deep water, he was followed by a large and moſt audacious ſhark.

Although many people on the wharf witneſſed the horrid ſcene, and ſhouted, to deter the monſter, he perſevered in the purſuit, and, juſt as the lad had got hold of the boat's ſtern, the ſhark made the half turn, and got a leg nearly buried within his voracious jaws. However, from the tugging and reſiſtance, although the leg, downward from the calf, was

lacerated

lacerated in a moſt ſhocking manner, the complete loſs of the foot, from immediately above the malleoli, which, as it were, had arreſted his jaws, was only effected. Mr Weeks, ſurgeon's firſt mate of the Southampton, and myſelf, were together in one of the lofts of the King's yard. Upon hearing the lad's cries, we immediately ran to his aſſiſtance. No tourniquet being at hand, we took a handkerchief, knotted it in the middle pretty thick, which we applied as a compreſs to the femoral artery in the ham. The ends we ſecured above, and twiſted with a ſtick, for a ſcrew-key. By theſe means, we effectually ſtopped the hæmorrhage, which was very conſiderable, and carried him to the Naval Hoſpital. Amputation of the leg took place that evening. The lad did well; and, in May 1779, I had the pleaſure to ſee him at Plymouth in perfect health.

I ſhall only at preſent trouble you with another caſe.—Mr Dobbins, a midſhipman of his Majeſty's ſhip Pallas, in an action on the 29th February 1780, with the Princeſſa del Aſturias, received a wound from a half-pound ſwivel

ſwivel ball, which entered at the upper edge of the left ſcapula, ſlanted along upon it, and glided over its anterior edge, into the axilla. It was extracted next day; and, although it had grazed along a conſiderable extent of the ſcapula, and occaſioned ſeveral ſmall, but tedious exfoliations, yet I believe the caſe terminated well; for I ſaw him, many months after, at Port Royal, Jamaica, where he had been ſent to ſick quarters, in good health, though ſtill obliged to wear a ſcarf; which, conſidering the ſize of the ball, and its rugged ſurface, being of caſt metal, as well as the thinneſs of the bone injured, I think rather a ſingular inſtance.

X.

Account of a Rupture of the Abdominal Integuments, occaſioned by a fall, and followed by gangrene of the Omentum, terminating favourably. *By* Mr Alexander Kellie, *Student of Medicine in Edinburgh* *.

ON the 27th of June laſt, about 10 o'clock, P. M. in my father's abſence, I viſited Alexander Hall, aged 14, who had fallen from a ſhip's maſt, in the harbour of Leith, to the deck. The accident happened about 9, P. M. He ſat on the quay for ſome time after he fell, being unable to walk home, till a boy, a com-

* Leſt the reader ſhould imagine, that this extraordinary caſe reſts entirely on the report of a young man, it may not be improper to obſerve, that it is atteſted to be true, in every particular, by Mr Kellie, ſenior, Surgeon in Leith; of whoſe accuracy, as well as integrity, there can be no doubt.

a companion of his, chancing to paſs by, carried him home on his back. He complained much of pain in his belly; with a view to alleviate which, his mother gave him ſome ſpirits; but no relief being procured from that remedy, ſhe began to take off his clothes, to put him to bed, when ſhe was alarmed by the ſtrange appearance of ſomething protruding from a wound in the lower part of his belly. A meſſage was immediately ſent to my father, and the boy was put to bed. Having examined the parts, I found that, about an inch above the left groin, three portions of the inteſtines had been forced through an aperture ſimilar to that formed by a ſharp cutting inſtrument; but, as no cut nor laceration in his clothes could be obſerved, it appeared it had been burſt by the preſſure of the fall. I returned home, where I found my father, who went immediately along with me to ſee the boy; and having laid him in a horizontal poſture, with his thighs drawn towards his belly, he began, with all neceſſary caution, to attempt their reduction, which was effected with ſome difficulty.

The wound was about two inches in length, acroſs the under part of the abdomen. It was ſtitched in three places by the interrupted ſuture; and light, eaſy, emollient dreſſings were applied. An emollient glyſter was given him immediately after the operation, which he felt warm at the ſore. He then got an anodyne draught, and was ordered to be kept very quiet. During the reduction, the inteſtines felt very cold; but no diſcolouration nor injury could be obſerved on them.

We now left our patient, with directions to ſuffer him to ſtir as little as poſſible. When I viſited him in the morning, I found, notwithſtanding the opiate which he took, he had a reſtleſs night, and vomited frequently. The draught was repeated in the morning; and, as no ſtool was obtained by the injection, he got a ſolution of purging ſalts, with tinct. ſen. comp. a ſmall quantity of which was ordered to be taken every half hour; but this, with the preceding, was ſoon vomited; nothing would remain on his ſtomach. His pulſe now felt much ſtronger than natural, and beat very quick. He was blooded to the extent of ten ounces; and a ſaline mixture was ordered

dered him, a doſe of which he took every hour.

The blood was not ſizy. His chief complaint was now referred to the epigaſtric region: emollient fomentations were ordered to be applied over the whole abdomen; and a purging glyſter was given him.

29th. The fever began to abate; his pulſe was not ſo ſtrong; the vomiting, however, ſtill continued ſevere. The fomentations and glyſter were repeated, which procured him a ſtool. In the evening, he got a doſe of pacific pills, with calomel. *30th*, The ſore was dreſſed, and looked well; he ſtill complained of much pain in the region of the ſtomach, which now appeared to be much tumified; but little pain was felt on preſſure being applied. He vomited his pills a ſhort time after he had taken them.

July 1ſt. He was reſtleſs and uneaſy; vomiting ſomewhat abated. The ſore was dreſſed; the lips appeared ſwelled, and the ſtitches threatened to give way. Adheſive ſtraps were applied at this dreſſing; and he was ordered to move as little as poſſible. Glyſters, fomentations, and the pills, were repeated.

2d *July*, He did not vomit for ſome time after taking the pills; no natural ſtool could as yet be procured; the ſtitches of the ſore had now given way, and the edges retracted conſiderably, notwithſtanding the application of the adheſive plaſters, which were now omitted. He continued much the ſame till the 7*th*, when viſible ſigns of gangrene appeared. His pulſe ſunk, general debility and languor took place. Some way above, and contiguous to the ſore, the parts put on a browniſh appearance; and, about three inches above the wound, a pretty large bluiſh veſicle, ſurrounded by one or two ſmall ones, made its appearance; from which, upon being punctured, a purple-coloured fluid was diſcharged. He was immediately put upon a courſe of Peruvian bark, elixir of vitriol, and port wine; a doſe of which, he was ordered to take every hour. Bark glyſters were alſo given him thrice a day. The bark, &c. ſat eaſy on his ſtomach. The mortification ſoon ſtopped; every alarming ſymptom wore gradually away; and the parts looked favourable. On that part where the large veſicle was opened, an ulcer ſoon formed; which, though

though every precaution was taken to prevent its increaſe, ſoon penetrated through the peritonæum, and expoſed the bowels open to our view. A portion of the omentum, in a mortified ſtate, ſoon occupied the aperture, which was removed without the ſmalleſt pain to the patient. He now got regular and free paſſage in his belly, and every appearance of danger wore off. The bark and other medicines were continued till he was able to get out. A cicatrix of all the parts being perfectly formed, and a conſiderable prominence appearing at the ſeat of the injury, a truſs was adapted to it; and he can now attend to his work, as a ſhoemaker, without any inconvenience whatever.

XI.

Hiſtory of a Caſe of Inguinal Hernia, ſucceſsfully cured by Operation, after appearances had become very unfavourable. By Mr William Robertſon, *Surgeon in Kelſo.*

ISABEL PATON, a woman of a ſlender make of body, aged thirty-four, had been ſubject to an Inguinal Hernia for the ſpace of ſeventeen years; during which period, it had given her very little pain or uneaſineſs. But, being engaged in hard work, upon Thurſday the 14th of July, the hernia became, all of a ſudden, greatly enlarged. She was, at the ſame time, inſtantly ſeized with an excruciating pain of the bowels, attended with an almoſt inceſſant retching and vomiting. Theſe complaints continued through the whole of that evening, and all the following day, with little variation, excepting for the worſe. Every means for her relief, that could be thought

thought of, was tried in vain; and all attempts for the reduction of the hernia, proved fruitleſs. Upon the Saturday, her complaints were ſtill aggravated. The retching and vomiting were accompanied with a loſs of ſtrength. Hiccough, and the other alarming ſymptoms which uſually preſage an approaching diſſolution, had taken place. The gentlemen of the medical faculty here, were unanimouſly of opinion, that the operation was the only remaining expedient which had a chance of reſcuing her from inevitable death.

The operation was agreed to by the patient. The ſkin and cellular ſubſtance being divided, and the ſac laid open, it was found to contain both omentum and inteſtines, with a portion of a ſanious watery fluid. The omentum was rather of a browniſh colour, and full of indurated knotty ſubſtances. It appeared to have been the original rupture. The inteſtines were of a blackiſh livid hue, and had all the appearance of an incipient mortification. Before the inteſtines could be reduced, it was neceſſary to enlarge the aperture of the ring. The omentum adhered ſo firmly to the ring, that the complete reduc-

tion

tion of it was found to be impoſſible. Part of it was cut off, and a portion of it was left unreduced. Notwithſtanding this, the wound readily cicatriſed over; the alarming ſymptoms gradually left her; and ſhe was able, within the ſpace of ſeven weeks, to walk about, and follow her uſual employment, and has continued free of complaints ever ſince. This hiſtory, therefore, clearly demonſtrates, that the operation will ſometimes be ſucceſsful, though performed at a later period than is proper, and after appearances have become very unfavourable.

XII.

XII.

A Caſe of Inverted Uterus. *By* A. Hamilton, *M. D. F. R. S. Ed. Profeſſor of Midwifery in the Univerſity, and Fellow of the Royal College of Phyſicians of Edinburgh.*

OF the accidents which occur in conſequence of parturition, none is perhaps more liable to happen under the management of ignorant practitioners, than inverſion of the uterus.

Fortunately, however, in the greateſt number of ſuch caſes, the inverſion is only partial; a circumſtance, to which probably may be attributed the many hiſtories of favourable termination of inverted uterus, which have lately been recorded by medical writers.

The following caſe differs from every other which I have had acceſs to know.

The

The publication of it may therefore prove uſeful.

In the year 1777, a midwife (who died ſeveral years ago) attended the labour of a lady, who before had been the mother of ſeveral children.

The labour was as favourable as could be wiſhed, and, after a few hours, a living child was born. At that time, however, the midwife received a preſſing meſſage from another patient, which induced her to extract the placenta as expeditiouſly as ſhe poſſibly could.

The violence with which this was accompliſhed, gave the patient very great torture, ſucceeded by pains reſembling the throes of labour, attended with much ſtraining, bearing down, and ſuppreſſion of urine, along with a conſiderable degree of hæmorrhagy.

Theſe ſymptoms continued for nearly thirty-ſix hours, during which time the midwife was abſent. From the report of the attendants on her return, ſhe aſſured the patient, that ſhe had another child to bear, which, ſhe added, eaſily accounted for what ſhe had ſuffered.

Having paſſed her hand within the vagina, ſhe felt a round hard ſubſtance. This confirmed

firmed her opinion; and therefore, ſhe pronounced the bulky body to be the head of a dead child, which, ſhe ſaid, ſhe would be able to remove, without occaſioning much pain.

For this purpoſe, ſhe graſped the round ſubſtance with her hand, and began to pull it down with the greateſt force; and this ſhe continued to do, till ſhe was obliged to deſiſt, from her own ſtrength having failed; for ſhe did not regard the dreadful cries of the patient, nor the threatening ſymptoms of convulſions.

The attendants then inſiſted on my being ſent for. On my arrival, I found a large fleſhy maſs, protruded from the pudendum, and extending very nearly to the knees; this I immediately knew was the uterus in an inverted ſtate. The midwife, however, having aſſerted, that no ſuch accident had happened, I called for a taper, and, drawing back the bed-clothes, ſhewed her the effects of her inhuman raſhneſs. From this circumſtance, having an opportunity of examining the caſe very accurately, I diſcovered, that the uterus, and

and along with it the vagina, were completely inverted.

The ſtate of the unfortunate patient was highly alarming: her pulſe was ſcarcely perceptible, and ſhe had clammy ſweats, attended with fainting. In ſhort, from every ſymptom, there was great reaſon to apprehend immediate death.

I reſolved, however, to attempt to reduce the inverſion; but I found it impracticable; for the os uteri had contracted very much, and was ſo rigid, that it rendered the return of ſo large a body as the uterus then was, abſolutely impoſſible.

As every attempt to reduce the inverſion had failed, and increaſed the diſpoſition to faintings, and threatening convulſions, I was obliged to content myſelf with replacing the vagina, and puſhing up the uterus within it. This, I confeſs, I did more for the ſake of decency, than from any hope of ſaving the patient, whoſe caſe I conſidered as deſperate.

Soon after this had been accompliſhed, her pulſe having become ſtronger, I gave her 35 drops of tinct. thebaic. and took my leave for that night.

On

On my return next morning, I learned, that ſhe had ſlept quietly for ſix hours after taking the opiate; but, ſince that time, ſhe had ſuffered violent pain, from the inverted uterus being again protruded through the os externum, in conſequence of having turned on her knees, from an urgent deſire to make water.

The reduction of the inverſion was again found impracticable; and therefore, being encouraged by the temporary relief which had enſued from replacing the uterus within the vagina, I determined to confine my views to that practice alone. I hoped, by doing ſo, at leaſt to obviate the violent pain, the ſuppreſſion of urine, and the teneſmus, which were occaſioned by the protruſion of the uterine tumour.

I therefore reduced the uterus within the vagina, and retained it there by means of a ring peſſary, mounted with ſponge.

By this treatment, to my great ſatisfaction, the bearing down pain gradually abated, and the patient made water freely ſoon after.

During ſeveral days, there was a fetid purulent diſcharge from the vagina, and therefore

fore topical injections were frequently employed, and the bark was given internally.

About fourteen or fifteen days after the uterus had been retained within the parts, the vagina aſſumed a gangrenous appearance, which rendered it neceſſary to withdraw the peſſary, notwithſtanding which the uterus kept its ſituation.

From this period, the patient gradually recovered, although, for ſeveral months, ſhe was very much debilitated, and ſubject to fluor albus, and moderate uterine hæmorrhagy, from time to time.

In ſix months, ſhe began to recover her appetite and ſtrength, and was able to take more exerciſe than could have been expected; for I met her one day when ſhe had walked above a mile and a half, without much inconvenience, except being greatly fatigued.

At the end of twelve months ſhe was quite well, able to take the charge of her family as uſual, and became regular in the menſtrual evacuation, though the uterus continues completely inverted.

The

The principal medicines which ſhe took during her convaleſcence, were, the Peruvian bark and vitriolic acid. She had recourſe alſo to the country air, and uſed the cold bath.

It is now fourteen years ſince the accident happened, yet the patient lives, and enjoys a tolerably good ſtate of health.

To this caſe I am induced to add a few obſervations on Inverſio Uteri, for which the importance of the ſubject is a ſufficient apology.

The uterus, at the full term of geſtation, when emptied of the liquor amnii, and child, is a large bag, ſupported only at the cervix by the ligaments which fix it to the ſides of the pelvis, and connected with the vagina below. Part of the bladder is attached to the fore part of its cervix, and the rectum is ſlightly fixed to the back of the ſame part.

In this ſituation, the uterus, in natural caſes, after the patient has recovered from the ſhock of delivery, begins to contract on all ſides, by which means the placenta is ſeparated and expelled. If, however, the practitioner does not wait for this contraction, but pulls

by the umbilical cord, as the cake is generally attached to ſome part of the fundus, ſeldom at the cervix, the uterus will be inverted.

Some authors have endeavoured to prove, that the womb, if ſuddenly emptied of its contents, may be inverted by the bearing down of the patient, puſhing the fundus through the open os uteri; but the reaſons hitherto offered, to ſupport the probability of ſuch an occurrence, ſeem to me to be very unſatisfactory, and are by no means convincing.

In caſes of very large pelvis, when the labour pains are ſtrong and forcing, if the convolutions of the cord round the child be conſiderable, the uterus may, in ſome degree, be inverted. This is, however, an accident which can be attended with no diſagreeable conſequences, under the management of a judicious practitioner.

There are two kinds of inverſion of the uterus. Theſe differ materially from each other, in ſymptoms and event. Hence, though they are only degrees of the ſame diſeaſe, they require different treatment, and may be termed

termed the Partial, and the Complete Inverſion.

The former of theſe is diſtinguiſhed from the latter, by its appearance on examination, and by the ſymptoms which ſupervene.

The uterus, when partially inverted, does not hang without the pudendum, but is felt within the vagina, as a round firm ſubſtance, reſembling the head of a child. It was this circumſtance which deceived the midwife, in the caſe I have deſcribed. In this diſeaſe, therefore, the fundus uteri alone is protruded through the os tincæ, which may readily happen from its unſupported ſtate, if the cord be violently pulled, before the womb contracts.

When, however, the uterus is completely inverted, the tumour extends from the pudendum to the knees; and the vagina, being alſo protruded, is turned out like the finger of a glove. This circumſtance cannot happen without laceration of the ligaments, &c. which connect the uterus to the ſides of the pelvis. The bladder muſt alſo be unavoidably drawn out of its ſituation.

The Complete inverſion of the uterus cannot therefore be induced, except by very violent and forcible efforts; conſequently, the practitioner who is guilty of occaſioning ſuch an accident, muſt be deſtitute of every principle of humanity, as the pain attending ſo dreadful an operation muſt be almoſt inſupportable.

The dangers to be dreaded from the Partial inverſion of the uterus, are profuſe uterine hæmorrhagy, and inflammation of the womb, with its conſequences. The ſuppreſſion of urine, and teneſmus, which ſupervene for ſome days, are only temporary ſymptoms, which diſappear in proportion as the bulk of the womb decreaſes.

In ſuch caſes, the hæmorrhagy often proves fatal; for the orifices of the large blood-veſſels, with which the placenta was connected, pour out a vaſt quantity of blood in a very ſhort time.

This, however, is not always followed by death; for the orifices, being expoſed, in ſome degree, to the action of the air, have their diameters contracted, or plugged up by coagula, while the os tincæ, by preſſing the fundus

dus uteri violently, prevents the blood from flowing into the large arterial trunks.

From this view, therefore, it is certainly often in the power of the practitioner to prevent the fatal termination of this diſeaſe, even though the uterus cannot be replaced in its natural ſtate. If, however, the reduction cannot be accompliſhed, the patient is generally expoſed to uterine hæmorrhagy during the remainder of her life, whenever ſhe is fatigued, or makes any conſiderable exertion.

In every caſe, therefore, of Partial Inverſion of the uterus, the complete reduction ought to be attempted. Dr White's method, for this purpoſe, will often ſucceed, when every other fails, and ſhould therefore be always adopted.

If the reduction of the uterus cannot be effected, which can very rarely be done where proper aſſiſtance has not been procured ſoon after the accident, the practitioner, for the reaſons already ſtated, ſhould not deſpond, but ought to employ every means in the power of our art, to ſtop or moderate uterine hæmorrhagy.

The Complete inverſion of the uterus is followed by conſequences much more dangerous than thoſe which occur in the Partial one.

The patient feels the moſt excruciating pain; deliquia and convulſions ſucceed, which induce almoſt immediate death. In five or ſix caſes, where this horrible accident had happened, although I was in the patient's houſe within from a quarter to three quarters of an hour after the inverſion, they had all expired before my arrival.

From authors having univerſally mentioned profuſe uterine hæmorrhagy as the conſequence of the complete inverſion of the womb, I was led particularly to attend to that circumſtance; and, in no ſuch caſe did I ever obſerve more than a trifling diſcharge; ſo that the fatal event is to be imputed ſolely to the deliquia and convulſions. Theſe muſt unavoidably enſue from the violent injury done by the laceration of the ligaments, &c.

It is probable, that, in complete inverſion, no uterine hæmorrhagy can take place; for the ligaments through which the large blood-

veſſels

veſſels paſs to the uterus, muſt be lacerated, or very much ſtretched; in either of which caſes, the paſſage of the blood will be ſtopped.

The branches of the hypogaſtric, which enter the uterus at its cervix, ſerve, in ſuch caſes, to nouriſh it, and hence prevent mortification of that organ, in the event of the patient ſurviving, as in the caſe which I have related.

There is much reaſon to believe, that it is impoſſible to reduce the completely inverted uterus, except immediately after the accident has happened, before the os uteri has begun to contract; at leaſt, I have tried to do ſo in vain. Dr White's method I have always followed, but without ſucceſs; and, as the diſeaſe terminates fatally ſo ſuddenly, no time ought to be loſt in making fruitleſs attempts. Thoſe practitioners who have imagined that they had replaced the inverted uterus, when the accident had happened many hours before, have miſtaken the caſe; for, under ſuch circumſtances, the uterus can only have been partially inverted.

Some doubts have occurred to me with re-

ſpect to the propriety of reducing the completely inverted uterus to its natural ſituation, even though it were practicable: theſe I cannot, on this occaſion, explain fully. In order, however, to ſuggeſt an inquiry into the ſubject, I ſhall juſt mention, that they are founded on the ſtate in which the uterus would be, were it perfectly replaced.

In every caſe of complete inverſion, I do not heſitate to adviſe, that too much time ſhould not be exhauſted in attempting the reduction; and that, if convulſions threaten, the uterus ſhould be replaced in its inverted ſtate, within the vagina, and retained there.

The caſe which I have deſcribed, exhibits an example, both of the partial and complete inverſion of the uterus; no inſtance of which, I believe, has been recorded: It affords an example of recovery, under circumſtances which, in the greateſt number of ſimilar well authenticated caſes, have proved fatal to the patient.

My ingenious and much reſpected friend, Dr Denman, has, in his valuable collection of engravings, obliged the world with the repreſentation

ſentation of an inverſion of the uterus, where the patient recovered for ſeveral months. This may perhaps be conſidered by ſome, as ſimilar to that which occurred to me. There are, however, circumſtances in the hiſtory of Dr Denman's patient, which induce me to ſuſpect, that the inverſion was, in her caſe, only partial.

For the accident was not diſcovered, in that caſe, till twenty-four hours after it had occurred; which could never have happened, had the uterus been pulled down completely through the os tincæ. The woman alſo had uterine hæmorrhagy, which does not, I have endeavoured to prove, take place in complete inverſion; and, as the moſt certain confirmation of my ſuſpicions, the ligaments, as repreſented in Dr Denman's elegant plate, though "altered in their direction," are nearly in their ordinary ſituation, with reſpect to their connection with the ſides of the pelvis.

I will conclude theſe obſervations, by remarking, that, from what I have ſeen in my own

own practice, and from the hiſtories I have received of caſes, in that of others, I am led to believe, that by far the greater number of thoſe who recover from Inverſio Uteri, have had the uterus only partially inverted.

XIII.

XIII.

Hiſtory of a Caſe of obſtinate Conſtipation, ſucceſsfully treated by the Uſe of Quickſilver. By Mr William Perry, *Aſſiſtant-Surgeon to the 3d Regiment of Foot.*

SAMUEL SHORT, a private in the 3d regiment of Foot, having lived a long time in tropical climates, and indulged to exceſs, as is too frequently the caſe with ſoldiers, in the uſe of ſpirituous and intoxicating liquors, had contracted ſuch viſceral obſtructions, as to render him very ſubject, on the ſlighteſt irregularity, or expoſure to damp, to ſpaſmodic affections of the inteſtines, ending ſometimes in a moſt violent conſtipation, accompanied with a high degree of inflammation in the bowels.

In Jamaica, this man had one or two violent attacks; but, from every information I have been

been able to obtain, they were by no means ſo obſtinate as the one I am about to relate.

Though quickſilver is a remedy little uſed by modern practitioners, in conſtipation of the bowels, and cenſured even by ſome of the moſt eminent of the Faculty, yet its ſingular utility in this inſtance will, I hope, ſufficiently recommend the caſe to the attention of medical practitioners. It is not, however, the diſeaſe, or its remedies, which deſerve attention, in ſo high a degree, as the conſequences with which it was attended. The circumſtance, of a man being reſtored to life, after lying in a ſtate apparently dead for the ſpace of more than ten minutes, is both ſingular and intereſting. It may, I hope, ſerve as an uſeful caution to prevent us from giving up patients for loſt, without trying every means to reſtore them, even after appearances of death, in ſome caſes, have taken place. Indeed, I truſt it is now generally believed, that the actions of life may, for a much longer period than occurred in the preſent caſe, be completely ſuſpended, though the power or principle is not extinguiſhed, and that, ſo long

long as the latter exiſts, there is a poſſibility of reſtoring the former.

After theſe obſervations, I ſhall now proceed to relate the hiſtory of the caſe to which I have alluded.

On the 11th of January 1791, in the morning, this patient was attacked with the uſual ſymptoms of conſtipation, accompanied with thoſe indicating inflammation of the bowels. The pain, which was very acute, was ſituated immediately beneath the great lobe of the liver, in the courſe of the colon. Theſe ſymptoms were accompanied with a vomiting of yellow bilious matter. His pulſe was about an hundred in the minute, much contracted, and ſmall; his ſkin was warm and dry; and he had not had any ſtool for three days. I immediately let blood to the extent of ſixteen ounces; his abdomen was fomented with flannels wrung from warm water; and a pound and a half of tepid water, joined with a little oil, was thrown up the rectum. He was ordered alſo to employ the warm bath at bed-time.

Jan. 12. *h.* 9*na*, *A. M.* He had derived much relief from the remedies uſed yeſterday. The blood drawn ſhewed a great quantity of buff on its ſurface. His pains were conſiderably relieved; but though his injection was repeated at bed-time, both were rendered, without the ſmalleſt particle of fæces. Upon preſſing externally along the courſe of the colon, a hardneſs was perceptible, and he experienced a ſlight degree of pain. The watery injection was now ordered to be repeated, to the extent of two pounds and a half, with the addition of a quantity of aſſa fœtida. A draught was alſo given him, compoſed of caſtor oil and tincture of ſenna; but that being immediately returned, he was ordered to take a bolus, compoſed of ſcammony, jallap, and a little cream of tartar; and it was directed to be repeated every third hour, till a ſtool ſhould be procured.

Ditto, *h.* 7*ma*, *P. M.* The injection given in the morning was rendered without any fæces. Four of the boluſes were retained without producing any effect. The pain of his bowels recurred about half an hour ago, as violent as ever, and ſtill continues.

He

He has had no ſtool ſince the 8th, in the morning; he takes no nouriſhment; his pulſe is now about an hundred, ſmall and contracted. His ſkin is very dry and warm; his countenance ſhrunk, and rather pale.

In this ſituation, I blooded him immediately, to the extent of ten ounces. He bore it tolerably, and found his pains rather more eaſy. The effervеſcing draught was continued, and the fetid injection repeated to two pounds and an half. A large bliſter was applied over the part affected; and fifteen grains of cathartic extract, with one grain of opium, were ordered to be taken every four hours. The warm bath was alſo uſed, previous to the application of the bliſter.

Jan. 13. *h.* 9*na*, *A. M.* He ſlept none during the night; but the fever and pain of his bowels are almoſt gone. The bliſter operated well; but though he had three doſes of the cathartic extract, no ſtool was procured either by them or the injection. The latter was returned ſoon after exhibition. No buff appeared on the blood drawn yeſterday. The vomiting recurred once or twice in the night. Fomentations were diligently uſed, and he had

had continued in the warm bath for twenty minutes. Five days had now elapſed ſince he had any ſtool, and he was exceedingly reduced, ſcarce being able to take or retain the ſmalleſt nouriſhment. His pulſe was very ſoft and low, not exceeding eighty ſtrokes in a minute.

The efferveſcing mixture was ordered to be repeated, and thirty grains of cathartic extract, with one of opium, were ordered every third hour. An ounce of tobacco cut ſmall, was then infuſed in four pounds of boiling water; to the ſtrained liquor a little oil was added, and the whole was thrown up into the rectum. The warm bath was ordered to be repeated at bed time.

Jan. 14. *h.* 9*na*, *A. M.* He ſlept very little. The injection of infuſion of tobacco produced no effect. He found the warm bath very comfortable. He had no pain of the bowels, but the ſwelling and hardneſs of the colon continued undiminiſhed, and he had now been without a ſtool for ſix days. His pulſe was ſeventy-ſix in the minute, and very feeble, but regular. He had much dejection and yellowneſs of countenance, and he was extremely weak.

Every

Every thing now put on the appearance of the utmoſt danger. Matters having arrived at the moſt critical extreme, every remedy that even carried with it the poſſibility of ſucceſs, was looked upon as worthy of trial. I therefore ordered two ounces of quickſilver in a little mulled wine, to be taken every third hour, till a ſtool ſhould be procured. The effervescing mixture, with fifteen drops of laudanum to a doſe, was ordered to be continued.

Do. h. 9na, P. M. He retained the quickſilver; and about five minutes after the third doſe, he had an evacuation per anum. It conſiſted of an infinite number of ſmall round lumps or balls. Between three o'clock and nine, he had three of theſe ſtools, and a conſiderable quantity of the mercury appeared in them quite comminuted, and reduced to the ſmalleſt particles. The patient, however, was ſo extremely weak, that I thought no hopes of recovery could be reaſonably entertained. He was ordered ſome mulled wine and ſago; and the quickſilver and neutral mixture were directed to be continued through the night.

Jan. 15. He had many evacuations during the night, all in little round lumps, ex-

tremely hard, but accompanied with very little fœtor. The hardneſs and ſwelling of the right hypochondrium, were now almoſt gone; but the debility ſeemed rather increaſed, notwithſtanding every precaution was uſed to guard againſt it. No pain of the bowels now remained, even on very hard preſſure.

He was directed to take a large proportion of wine, chicken broth, &c. The quickſilver and effervеſcing mixture, with fifteen drops of the laudanum to each doſe of the latter, were continued as uſual. The warm bath, on account of his debility, could not be repeated. Though the original complaint of his bowels ſeemed to be completely overcome, moſt probably by the ſpecific gravity of the quickſilver, yet he had now every appearance of approaching diſſolution. From the conſideration of his preſent ſtate, and of the inflammatory ſymptoms which prevailed at the commencement of his diſeaſe, there was every reaſon to ſuſpect a mortification in his bowels. But his ſtools were never attended with any ſtronger ſmell, than might have been expected from ſo long a retention. I ordered him a decoction of

Peruvian

Peruvian bark, and ſnake-root tea, to be taken through the day.

Jan. 16. *h.* 8*va*, *A. M.* I was informed by the ſerjeant of the hoſpital, that Short was dead. The intelligence by no means ſurpriſed me. On my arrival at the hoſpital, I found him to every appearance dead; and, as far as could be aſcertained, he had now lain in this ſtate for five minutes. It is, at all times, a moſt diſagreeable circumſtance for a medical practitioner to be called in, when his patient is either dead or dying. But, in this caſe, ſurrounded by a number of ſoldiers, generally very credulous, and ſome of whom were in the laſt ſtage of a bad fever, the ſcene was peculiarly diſtreſſing. Nothing now remained for me to do, but to comfort the living, by ſhewing what I rather deemed a ſuperfluous attention to the dead. I accordingly warmed a pint of port wine, and added to it thirty grains of Cayenne pepper; and, by means of a long glaſs tube, poured the whole into his ſtomach. I then applied warm bricks to his feet, and held volatile alkali to his noſtrils. He had now lain for ſeven minutes and a half in a ſtate of ſuſpended animation.

After the adminiſtration of the wine, I ſtood by him for two minutes more; but finding no ſymptoms of returning life, I left him, after having ſhut his mouth and eye-lids; and went into an adjoining ward to viſit ſome other patients. I had only remained there about two minutes, when I was told by the ſerjeant, that Short had made a ſort of noiſe, and had begun to open his eyes. I was much aſtoniſhed at the relation; but on running into the ward, I found his eyes perfectly open, and poſſeſſing a degree of wildneſs not to be deſcribed. Some pulſation was perceptible in both carotids. There was alſo ſome appearance of reſpiration, and a viſible contraction in the pupils of both eyes. But the progreſs of reſpiration was very ſlow, and ſeemingly attended with much difficulty and diſtreſs.

I immediately ordered two of the ſtrongeſt ſoldiers who were at hand, to ſtrip, and to ly down, one on each ſide of my patient. I poured ſome warm wine by means of the glaſs tube, as before, into his ſtomach; and, in the courſe of an hour, I had the pleaſure of finding him in a fair way of recovery. By the time he recovered his articulation, which was

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in about two hours, he called inceſſantly for victuals; and his appetite ſo increaſed, in the courſe of a few days, as to become even voracious. The rapidity with which he recovered his ſtrength, was aſtoniſhing. He is now perfectly well, and doing his duty as a private ſoldier.

Portſmouth, Feb. 1. 1791.

XIV.

Hiſtory of an Obſtinate Swelling of the Knee, terminating in Recovery. By Dr George Macfarquhar Lawſon, *of Montego Bay, Jamaica.*

A MAN, aged 23, of a healthy and robuſt conſtitution, plethoric habit, and dark complexion, had, for a week or two, complained of a diſagreeable ſenſation in the joint of the right knee, about its centre. The knee became rapidly and conſiderably ſwelled, and the leg gradually waſted. His appetite and health declined. He knew no cauſe whatever to which his complaint could be attributed.

A practitioner adviſed him to keep a cloth wet with vegeto-mineral water, conſtantly applied to his knee, and to throw cold water upon it every morning and evening. Finding no relief, he applied to me on the firſt of February. I immediately concluded it to be a rheumatic

rheumatic white ſwelling. Pain had now taken place. It felt as if deep-ſeated, and was very ſevere, extending along the tendinous expanſions of the muſcles connected with the joint. It was much increaſed by motion, particularly by flexion or extenſion. The ſkin had a ſhining appearance. A bliſter was applied on each ſide of the patella, leaving the top unbliſtered, with a view to ſcarification; which, however, he declined. A few cooling and laxative medicines were given, as he was coſtive; and one of the following powders every morning and evening:

℞ Antimonii crudi drachmam unam.

Opii puriſſimi gr. vi. M. & divid. in doſ. vi. Mercurial friction of the thigh of the ſame ſide, was carried ſo far as to affect the mouth; and he took daily ſix drams of powdered Sarſaparilla. On the 27th of February, the antimonial powders were omitted; and next day, I had a conſultation with Dr Murray, an eminent phyſician here. We directed for him the following pills. ℞ Extracti foliorum Cicutæ, Calomelanos, utriuſque grana xiv. Extracti Thebaici gr. vii. Mucil. Gum. Arab. q. s. fiat maſſa divida in pil. xiv.

quarum duæ mane et veſpere ſumendæ. Mercurial friction was laid aſide: he had for common drink, a decoction of guaiacum. The bliſters were kept open, and the ſarſaparilla continued. A ſeton was alſo introduced below the knee.

The extract of cicuta was gradually increaſed till the 13th of April, when he became affected with headach, ſtupor, and other ſymptoms often ariſing from cicuta. This article was therefore omitted; but calomel and opium were continued till the 29th of April, when his knee was much reduced in ſize, being hardly larger than the ſound one, and without pain.

The bliſter, which had hitherto been kept open, was now healed up; the pills were laid aſide, and no medicines were taken, but two drams of the ſarſaparilla daily, and a ſmall quantity of the guaiacum decoction. The ſeton was kept open, and affuſions of cold water to the knee, were uſed every morning and evening. Gentle friction with camphorated oil, was alſo frequently repeated, and continued for half an hour each time.

time. On the 6th of May, he began to take five grains of the ſal Martis daily; but, on the 14th of June, he left off all medicines, being then reſtored to the perfect uſe and ſtrength of his knee. He now goes about his uſual buſineſs, which is a laborious one, without the leaſt impediment.

SECT.

SECT. III.

MEDICAL NEWS.

IN former volumes, we have repeatedly given ſome account of the progreſs made in building the New College at Edinburgh; a ſubject in which we conſider medical education, in general, as not a little intereſted. We are happy at being now able to inform our readers, that ſeveral of the Profeſſors are already accommodated with claſs-rooms, in the north-weſt corner of the great ſquare.

The following addreſs, by Dr Duncan, to the ſtudents of the Inſtitutions of Medicine, when he began the lectures on that branch, October 26th 1791, will convey ſome information,

mation, which may not be unacceptable, to many of our readers.

" Gentlemen, I cannot enter on the buſineſs of a lecturer, in this room, without firſt ſincerely congratulating you, on our being now aſſembled under the roof of a new College. On the reputation which this univerſity has acquired as a ſchool of medicine, by the meritorious exertions of the eminent Profeſſors who firſt taught that ſcience at this place, it is unneceſſary for me to enlarge. Their numerous pupils, inſtructed in the healing art, have extended its fame to every corner of the Britiſh Empire, to every part of the world.

Without ſuch abilities as they poſſeſſed, it would have been impoſſible to combat and overcome the difficulties with which they had to ſtruggle; and, among others, thoſe which aroſe from the fabric of the College itſelf, were no inconſiderable bar to their exertions. For the buildings appropriated to ſcience in this place, were not only mean and contemptible in their external appearance, but highly inconvenient in their internal ſtructure. By

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theſe means, the induſtrious ſtudent was here deprived of ſome advantages, at leaſt, which he had an opportunity of enjoying at other ſeminaries of medical education. It had long, therefore, been the earneſt wiſh, both of the Patrons of the Univerſity, and of the public at large, that a commodious College ſhould be built, to ſecond the exertions of thoſe Profeſſors, whoſe abilities had rendered Edinburgh the great ſchool of medicine for the Britiſh dominions, and had attracted foreigners from almoſt every nation in Europe.

But the money allotted for ſupporting the fabric of the College of Edinburgh, was by no means adequate to ſuch an undertaking. Its whole public funds, were annually expended, in ſupporting a tottering edifice. Before, therefore, any ſerious thoughts could be entertained, of beginning a new building, other aid became neceſſary. Under the auſpices, however, of a * chief Magiſtrate, equally diſtinguiſhed for indefatigable exertion, and for many amiable virtues, the generoſity of the public has been effectually called forth to ſecond

* Thomas Elder, Eſq; of Forneth.

ſecond the efforts of Science; and we have now ſeen a ſerious and ſubſtantial commencement to the building of a new College at this place. For in the part already finiſhed, accommodation will be afforded not only for us, but for ſix other Profeſſors and their pupils, even during the preſent Winter Seſſion.

It is indeed true, that the apartments ultimately to be appropriated to all theſe different teachers, are by no means completed; and the ſtudents of the Inſtitutions of Medicine, have now a temporary accommodation only, in this room, by favour of the Profeſſor of Anatomy. The reſpectable body of Truſtees, to whom the conduct of the building is entruſted by the contributors, have very properly directed their attention, in the firſt place, to that part of it, which is to afford every poſſible accommodation to the ſtudents of Anatomy. And the room which we now occupy, is one of thoſe intended to be appropriated to the purpoſes of anatomical painting. The period, I truſt, is not far diſtant, when in this apartment, the induſtrious ſtudent, on whom nature has beſtowed, not only the zeal of an anatomiſt, but the genius of a painter, will at once

once employ his talents, in improving himſelf, in aiding his Profeſſor, and in advancing our knowledge of the ſtructure of the human frame. For if the important work, thus happily begun, be not allowed to languiſh for want of proper aid, the apartment intended for the Inſtitutions of Medicine, will be completed before the commencement of another Seſſion.

To accompliſh this, indeed, farther aid from the public will ſtill be neceſſary. But I truſt, that the example of thoſe, whoſe liberality has given ſuch a beginning to this undertaking, will yet be followed by many others. Indeed, there is already, perhaps, not more ground for admiring the generoſity of ſome, than for wondering at the delay of others. When we conſider that many have already contributed to this undertaking, connected with Edinburgh by no other tie, but that of being the friends of Literature, and encouragers of Science, we can hardly ſuppoſe, that any reſpectable pupil of the Univerſity, will withhold his mite on the preſent occaſion. And it is difficult to conceive, that there is any ſon of our Alma Mater, now placed in eaſy and independent

independent circumſtances, who will not ſecretly reproach himſelf with negligence and ingratitude, if he ſhall longer delay giving his aſſiſtance to this undertaking; for, by this delay, he may allow a work to be ſtopped in its progreſs, which he ought to conſider himſelf as called upon to encourage and ſupport.

Even a ſmall contribution, from every independent medical practitioner educated at Edinburgh, who has not yet given any aid to the new College, would form a very conſiderable ſum. And as every part of the building, intended for the accommodation of the Medical Faculty, is already ſomewhat advanced, there is good reaſon to believe, that ſuch aid would be ſufficient to complete the whole of it. It is therefore to be hoped, that the circumſtances which have delayed the contributions of many, will no longer operate; and that the Truſtees will be enabled to continue the work, with the ſame expedition which has hitherto been employed.

The progreſs which has already been made, and which, I flatter myſelf, will ſtill continue to be made in this undertaking, by the voluntary contributions of a free and enlightened people, muſt reflect, in the eyes of poſteri-

ty,

ty, no inconſiderable honour on the preſent age. It is not, indeed, intended, that this new College, either in point of magnificence or extent, ſhould equal many of thoſe fabrics, reared in former times, by the exactions of arbitrary power, or the enthuſiaſm of blind ſuperſtition; but, in point of elegance and utility, it will be inferior to none of them: And it will, I truſt, be a laſting monument, both of the judgment, and taſte, of the preſent period.

But, Gentlemen, if the friends of Science, have already done ſo much for our mutual accommodation, both as lecturers and as hearers, let us but for a moment conſider, what return they have a right to expect from us, in the character either of Profeſſors or of pupils. Nature, indeed, has not endowed every one, raiſed to a Profeſſorial chair, with thoſe peculiar talents, which adorned the founders and ſupporters of the medical ſchool at this place; and it is not even every age, which can produce many men, uniting the profound knowledge, the pleaſing elocution, and the extenſively varied abilities of a Monro, a Whyte, or a Cullen. But you will never, I am confident,

fident, expect from any teacher, what he is incapable of accompliſhing. What we are able to do, will not, I truſt, be wanting; and I flatter myſelf, that the Profeſſors of the preſent period, will be inferior to none of their predeceſſors, in unwearied exertions of active induſtry. You, Gentlemen, will, I truſt, bear witneſs to the public, that it is our conſtant endeavour, to convey uſeful inſtruction to our hearers, to the utmoſt of our power; and our labour, I hope, will not be in vain. For if I may judge of you, from what I have obſerved of former ſtudents, your zeal in the acquiſition of knowledge, will not be inferior to that of your teachers, in their attempts to communicate it. An unwearied ardour, in the proſecution of ſtudy, particularly among the ſtudents of medicine, has, for a long time, prevailed very generally at this place; and there is no reaſon to fear, that it will now be abated.

Our mutual exertions in the communication and acquiſition of knowledge, cannot fail to give reciprocal aid to each other; and, I truſt, that the patrons of Science, in return for the accommodation which they have afforded

us, will have ſincere ſatisfaction, in obſerving our efforts for the public good. We cannot beſtow too much attention in the improvement of an art, calculated for the preſervation of life, for the alleviation of human miſery. Nor does this conduct, on our part, require any ſacrifice, either of intereſt or of ambition; for both our future honour and emolument, are inſeparably connected with the faithful diſcharge of our duty. Our own advantage, therefore, combined with a due ſenſe of gratitude to thoſe whoſe contributions have erected this building, will, I truſt, call forth, both from Profeſſors and Pupils, ſuch exertions, as will not only ſupport the reputation, but extend the uſefulneſs, of the Univerſity of Edinburgh, eſpecially as a ſeminary of medical education.

From theſe remarks, I am naturally led to employ the preſent lecture, in offering a few obſervations on the office of a faithful teacher, and the duties of an induſtrious ſtudent."

Laſt

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Laſt year, a ſmall pamphlet was publiſhed, by the Reverend Sir William Clerke, Bart., Rector of Bury, in the county of Lancaſter, intituled, "Thoughts upon the means of preſerving the health of the poor, by prevention and ſuppreſſion of epidemic fevers, addreſſed to the inhabitants of the town of Mancheſter, and of the ſeveral populous trading towns ſurrounding and connected with it."

In that pamphlet, among many other judicious obſervations, we find the following rules of prevention and ſuppreſſion of epidemic fevers, for the uſe of the poor of the townſhips of Bury and Elton.

"An early notice of the attack of fever, muſt be given to the medical perſon appointed to attend the ſick.

"The apartment of the ſick, ſhould be

waſhed with ſope and hot water, that it may ſoon become dry.

" The ſick perſon ſhould have clean linen, both about his perſon, and upon his bed.

" If the bed-clothes be dirty or offenſive, freſh ones ſhould be provided.

" Whenever the ſick perſon's linen is renewed, which it ſhould often be, what he puts off, ſhould be thrown into cold water, with a portion of ſope-lee in it, and repeated quantities of cold water poured upon it, before it be waſhed.

" The buſineſs of waſhing, ſhould be performed in the open air.

" When the ſick perſon has occaſion to go to ſtool, the pan which he uſes, ſhould contain ſome cold water; and, immediately after each ſtool, cold water ſhould again be poured into the pan, which is to be carried out of the chamber with no loſs of time.

" After the recovery of the ſick perſon, the apartment in which he has been confined, ſhould be well aired, white-waſhed with lime freſh ſlacked, and laid on hot. The windows to be ſet open every day.

" If

" If the bed has been fouled by the diſcharges of the ſick perſon, it ſhould be burnt.

" The bed-clothes muſt be thoroughly ſoaked in water, then waſhed, and hung in the open air.

" Each member of the family of the ſick, ſhould take, according to their age, a teaſpoonful or two, of unbruiſed muſtard-ſeed at bed-time, to prevent the catching the diſorder.

" If the family have more apartments than one, that in which the ſick perſon is confined, ſhould be frequented only by thoſe who are neceſſary to attend him.

" Every member of that family ſhould be precluded from entering into any neighbour's houſe, and be kept, as much as poſſible, from any intercourſe with others.

" The ſame rule ſhould be obſerved, with reſpect to the viſiting of neighbours or ſtrangers, with that family.

" To encourage a ſtrict obſervance of theſe regulations, a reward will be paid, at the termination of the fever, by the Committee, to the maſter or miſtreſs of the houſe, on producing a certificate from the attending ſurgeon.

" By a ſtrict obſervance of theſe rules, we truſt, through the bleſſing of God, that the preſent miſery of the poor will be alleviated; the ravages of a malignant and mortal diſtemper will be checked; and health, enjoyment, and uſefulneſs to our fellow creatures, reſtored.

" Temperance and cleanlineſs to the whole body of the poor, are here particularly recommended.

" And the Committee, painful as it will be to them, will be obliged to withdraw their ſupport from families, who diſregard the foregoing reſolutions.

" Theſe rules of prevention and ſuppreſſion of fevers, are given to the public, upon the authority of a very eminent phyſician at Mancheſter, by whoſe humane attention to the poor, ſuperior knowledge, and excellent judgment, the public are daily benefited.

By order of the Committee,

The Rev. Sir W. CLERKE,
Chairman."

Bury, 30th Dec. 1789.

In

In addition to theſe directions, and in purſuance of a plan ſuggeſted by Dr Percival, an apothecary was appointed for the ſick; and an inſpector to attend to the diſtribution of cordial ſupport; to anſwer for the proper delivery of bedding, blankets, and linen; to take notice whether the rules were obſerved or tranſgreſſed; and to give ſuch information, to a committee appointed by the ſubſcribers to a ſmall fund for the relief of the poor, as the ſtate of the ſick families might require.

We are happy to find, that this plan has been attended with the beſt effects. Dr Percival, in a letter to Dr Duncan, informs him, that Sir William Clerke has lately favoured him with the following account of the ſucceſs of it.

" About four hundred and thirty perſons, I apprehend, have received the benefit of a ſubſcription in this town, for the relief of perſons in the fever. But the relief, at firſt, was given ſo much without method, that I can form no concluſions, except upon three hundred and ninety, whoſe ages, ſex, &c. have been noted. The number of perſons who

have died by the diſorder, ſince particular regulations took place, have been nineteen, viz. twelve women, ſix men, and one child. And they have fallen in this proportion: Under twenty years, 1 in 216; from twenty to thirty, 1 in 23; from thirty to forty, 1 in 15; from forty to fifty, 1 in 8; from fifty to ſixty, 1 in 6; from ſixty to ſeventy, 1 in 5. The only perſon attacked above ſeventy, died; ſo that, as far as the numbers will afford any concluſion, the diſorder proves more fatal to women than to men; and is, with regular progreſſion, more frequently fatal, in proportion as the perſon attacked is advanced in years. The whole number of men attacked by the fever, ſince any account has been kept regularly, has been ſixty-nine: Of women, the number has been ninety-ſix. Upon the whole number, the proportion of deaths to the numbers attacked, has been 1 in 11 and a fraction, among men. The proportion of women who have died, to the numbers who have taken the fever, has been 1 in 8. From the age of twenty to thirty, the number of men attacked by the fever, exceeds the number of women. From thirty to fifty, the number of women exceeds that of men. The whole number of

women

women who died, is one third more than that of men; and it appears to have taken place within the above period. I do not pretend to give any reaſon, but the obvious one which occurs, That, within that period of life, the families are in general the largeſt; that children are more likely to communicate the infection than others; and that the neceſſary and natural attention of women to the care of their families, expoſes their lives more particularly to hazard.

" The inference which theſe regulations has furniſhed, convinces me of the ſubtilty and diffuſive quality of the diſorder. It proves the neceſſity of unremitted attention to cleanlineſs, and the ſalubrity of the air in thoſe places, particularly where numbers of children are employed together.

" Whether any effectual regulations will ever generally take place in this country, is not for me to aſcertain. I have only to endeavour to watch over this place and neighbourhood. And I hope, when the ſame viſitation has fallen upon other towns, that the experience which this town has furniſhed, will

will facilitate the ſuppreſſion of this fatal diſorder.

" The expences attending the ſuppreſſion of this fever, have been as follows:

Medicine and attendance	L. 110	14	8
Wine - - -	12	0	0
Inſpector - - -	24	12	0
Bedding, linen, &c. -	83	3	4
	L. 230	10	0

" The article of white-waſhing was too trifling to be mentioned."

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Dr Percival, in a letter to Dr Duncan, communicates to him the following obſervations reſpecting Rabies Canina.

" I lately received a packet from Philadelphia, which, among other intereſting particulars, contains the following fact relative to the Hydrophobia, communicated by Dr Weſtern,

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a phyſician of character and veracity, of the pariſh of St Ann's Bay, in the iſland of Jamaica. It is inſerted in the American Muſeum for September, in the following words:

" In January 1790, a negro boy was bitten in the hand by a dog, to all appearance as mad as I ever beheld one. The dog alſo bit two ſheep, and was afterwards killed. Being called to the boy, a ſhort time after he had received the bite, I immediately dilated the wound, and filled it with ſtrong mercurial ointment, having in it a proportion of common turpentine, which cauſed it to inflame conſiderably, and diſcharge freely. I alſo gave him the Peruvian bark in ſubſtance with wine, for eight days, gradually increaſing the doſe; during which time, not the leaſt ſymptom of Hydrophohia appeared. The boy continued perfectly well when I left the iſland, which was in June laſt. The two ſheep, which were bitten nearly at the ſame time, died in ten days afterwards, raving mad. I believe this is the firſt caſe yet communicated to the public, of the ſucceſsful employment of bark and wine, in the Hydrophobia."

To

To this fact communicated by Dr Weſtern, Dr Percival adds, " Since the publication of the little tract on the nature, cauſe, and cure of Rabies Canina, inſerted in the ſecond volume of my Eſſays, (4th edition, p. 363), I have been confirmed, by various facts, which have occurred, or been communicated, in the opinion, that this diſeaſe is to be conſidered and treated, as a malignant ſpecies of Tetanus. There ſeems to ſubſiſt no ſtrict analogy between the action of the Canine virus, and that of the Lues Venerea, of the Small Pox, or of the Viper. Theſe evidently affect the lymphatic ſyſtem; and their progreſs into the courſe of circulation may be eaſily traced, which is not the caſe with the poiſon of a mad dog. This poiſon ſeems to exert its energy only on certain nerves, under certain conditions; and the chance is always great againſt its operation. So it is with wounds or injuries of the tendons, which are rarely, and only under very particular circumſtances, ſucceeded by a locked jaw. Whereas the virus of the ſmall pox, &c. ſeldom fails, when applied, of producing its baneful effects on the body, being tranſmitted into the ſyſtem,

by

by abſorption through a ſeries of veſſels, which are uniform and regular in their action.

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About nine years ago, Mr R. Mynors, an eminent ſurgeon at Birmingham, publiſhed a ſhort treatiſe, intituled, "Practical Thoughts on "Amputation," &c. In that treatiſe, by much judicious reaſoning, he ſtrenuouſly recommends the union of divided parts by the firſt intention; a practice no leſs beneficial to the patient, than ſatisfactory to the humane practitioner. Mr Mynors informs Dr Duncan, that, from eleven years experience of the plan which he had formerly propoſed, he is now happy to declare, that its ſucceſs in his own practice, and in that of numerous reſpectable ſurgeons in various parts of Britain, who have privately, and in public hoſpitals adopted it, has anſwered his utmoſt expectations.

The

The ſame gentleman publiſhed alſo, in the year 1785, a hiſtory of the practice of Trepanning the ſkull, and the after treatment, with obſervations upon a new method of cure, illuſtrated by a caſe. In this, alſo, he very ſtrongly inculcates the practice of uniting the wound which is formed in the operation, by the inflammatory adheſion. He now informs Dr Duncan, that ſince the publication of this book, he has the ſatisfaction to ſay, that ſeveral caſes of fractured ſkulls, have, by different gentlemen, been ſucceſsfully treated, according to the method which he had propoſed. Four of theſe, in the courſe of their cures, fell under his own inſpection.

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Dr Withering of Birmingham, in a letter to Dr Duncan, communicates to him the following intelligence reſpecting the Anguſtura bark, and the extract of Hyoſciamus.

" The

" The Anguſtura bark, promiſes to be an uſeful addition to the Materia Medica. It has been ſerviceable in ſeveral caſes of debility, connected with affections of the ſtomach and bowels, which did not admit the uſual courſe of Peruvian bark, without the addition of opium. And in autumnal diarrhœas, it has contributed much to the cure. It has ſucceeded well in ſome perfect, and in ſome indiſtinct intermittents. But I am not yet able to ſpeak of it fully on the baſis of large experience, as the medicine has only of late been diffuſed through the ſhops.

" An elderly woman, the mother of many children, about a year ago conſulted me, about ſome obſtinate rheumatic affections in her limbs. I expected advantage from the internal uſe of the Conium maculatum; but ſhe could not take pills or powders, on account of a difficulty in ſwallowing. And although the extract diſſolved might have been got down, I had no faith in the efficacy of that medicine, as it is in general prepared. Her difficulty in ſwallowing, came on gradually, without any aſſigned cauſe; and for many years ſhe had lived upon liquid food; or, if ſhe had maſticated

ſolid

ſolid food, ſhe ſwallowed the juices, and gave the morſel to a favourite little dog. Nothing like diſeaſe was viſible upon inſpecting the throat; nor was there reaſon to believe, that any particular tumour exiſted lower down, either in or about the œſophagus. I gave her extract of Hyoſciamus in ſolution. About a week after beginning it, ſhe obſerved, that though her rheumatic affections continued as before, ſhe could ſwallow better than ſhe had done for many years. She was now directed to omit the Hyoſciamus, and to take Tincture of Guaiacum twice in the day, and Dovers powder at bed time. After another week, the pains in her limbs were abated, though ſtill very troubleſome; but ſhe did not ſwallow ſo well as when ſhe took the firſt medicine. Another week was paſſed in the uſe of the Guaiacum and ſudorific powder; and the rheumatiſm being now much relieved, ſhe again took the Hyoſciamus. In a few days ſhe could ſwallow animal food, though not in large morſels, and ſhe ſtill retains this advantage."

I am well aware how little can be deduced, in medical practice, from a ſingle inſtance. But

But the publication of this, may perhaps occaſion a farther trial of Hyoſciamus in ſimilar affections, which are not very uncommon, though generally found to be incurable.

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We are authoriſed to ſay, that the damages done during the late riots at Brimingham, to Dr Withering's collections in natural hiſtory, are not ſo great as to prevent the publication of the remainder of the third volume of his Botanical arrangement of Britiſh Plants; and that, notwithſtanding ſome delay from the above-mentioned cauſes, it may be expected to appear in the enſuing ſpring.

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The following remarkable inſtance of the powers of worms, of the genus of Tænia, in re-

taining life, has been communicated to Dr Duncan, by a gentleman of undoubted veracity.

" One of the pointers of Mr S. which had been long ill, voided, in conſequence of ſome violent purgatives, two tæniæ, each ſeveral feet in length. They were, when voided, in a convoluted ſtate. A maid-ſervant who had ſeen the dog diſcharge them, waſhed them, and having put them on a large ſaucer, carried them up ſtairs, to ſhew them to her maſter. Mr S. intending to have them preſerved in ſpirits, filled the diſh with boiling water, in order to clean them more completely; and, at the ſame time, as they appeared perfectly alive, to kill them. By the boiling water, however, they ſeemed to be little if at all injured, as they continued, with little variation, the ſame twiſting motions which they had before exhibited. After having in vain waited for their deſtruction from this ordeal, he poured off the water, now nearly cold, and ſubſtituted for it ſome very ſtrong double whiſky. But from that, they acquired additional vigour; and their motions, which before were languid,

languid, now became briſk and animated. To uſe Mr S.'s facetious expreſſion, "they "appeared to be better for a dram." He ſuppoſed, however, that this violent agitation might only be a prelude to their death; and that it was occaſioned by the pain ariſing from the deſtructive action of the liquor. But, after a conſiderable time, their life and activity continued, to his aſtoniſhment, unimpaired. And it was only by adding to the ſpirit a quantity of corroſive ſublimate, that they were at length deſtroyed.

Can this obſtinate tenacity of life be explained from the nature of the animal in which the tæniæ were bred? The fæces of a dog are a moſt corroding ſubſtance. In inteſtines containing ſuch fæces, the tæniæ were generated, and lived. Having then a frame capable of reſiſting the influence of this corroding ſubſtance, by which they were conſtantly ſurrounded, it is not, perhaps, ſo much to be wondered at, that they ſhould be able to ſuſtain, without material injury, the action even of boiling water, or of the ſtrongeſt ſpirit.

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Mr Thomas Pollard Peirce, ſtudent of medicine from Barbadoes, has communicated to Dr Duncan, the following information reſpecting the uſe of the Petroleum Barbadenſe.

" I take the liberty of laying before you an extract of a letter from Barbadoes, relative to ſome ſucceſsful trials made by my father, with the Petroleum, or Green foſſile oil of that iſland. The caſes in which the remedy was employed, were an obſtinate and confirmed Lepra, and an occult Cancer of the breaſt. The ſubjects of both diſeaſes, were females. The latter was a caſe of fourteen or fifteen years ſtanding; and ſo dangerous and tormenting, that the uſe of the knife was ſtrongly urged. In the leprous caſe, (ſays the author of this intelligence), I began with two table ſpoonfuls of the tar in the courſe of the firſt day; one in the morning, and the other

in

in the evening. Sometimes it was ſwallowed alone, ſometimes mixed with Barbadoes rum; and, at others, with weak ſpirit of Vitriol beverage. It is very neceſſary to remark, in this place, that for two or three months before the petroleum was uſed, the patient had taken ten or twelve ounces of genuine red bark, and had drunk freely weak ſpirit of vitriol made into beverage, and occaſionally into punch. At firſt theſe medicines promiſed ſome degree of ſucceſs; but it was of no long duration. She began the uſe of the tar on July 10th 1790. In the following night, ſhe was purged and puked very ſmartly by it. Theſe effects were ſucceeded by pains in all her joints, which, by degrees, ſubſided and went off. On the ſecond day, three tea ſpoonfuls were given, and the doſe gradually increaſed to three table ſpoonfuls daily. When perſpiration happens, the matter diſcharged ſmells ſtrongly of the petroleum.

" *Aug. 6th.* The doſes of tar were now increaſed to ſix table ſpoonfuls daily. One very favourable effect is, that the colour of the ſkin is ſeveral ſhades deeper than it was,

and the patient declares, that ſhe feels better every day.

" Every following week, a table ſpoonful of tar was added, till ſhe took the quantity of nine table ſpoonfuls daily. Either in the month of September or October, ſhe was attacked with rigours, ſhiverings, and other ſymptoms, which ended in an intermittent fever, through which ſhe was ſafely carried.

" *Jan. 7th* 1791. My patient wants nothing now but fleſh and ſtrength to be quite well. I deſign to ſend her into the country to drink and bathe, in Moody's rill, the chalybeate ſpring at the late Col. Waterman's eſtate. This I would have done before, had ſhe not been ſuckling a very young child. This latter circumſtance alone prevented the external uſe of the tar. Weak ſpirit of vitriol beverage was uſed often, along with the tar, of which laſt, ſhe had taken about eight or nine Engliſh pints, when the fever came on.

" She uſes now about two or three table ſpoonfuls a day. This quantity will be gradually leſſened, and at laſt diſcontinued.

" With

" With reſpect to the other caſe, the tumour was as big as a pullet's egg, and very frequently produced moſt excruciating pains from below the ſhort ribs, quite up to the collar bone. It was ſituated on the left ſide. The uſe of the petroleum was confined to ſimple external application: firſt rubbing the hand on the tar, warming it over the flame of a candle, and gently preſſing and rubbing the tumour when painful. The application was frequently renewed. In a few days ſhe felt much better; and in ſeven or eight weeks, according to the account ſhe gave me, was cured. Many years ago, the Cicuta and other medicines were tried, but without effect; and I have reaſon to believe, that the tar itſelf was at firſt thought altogether to be an anceps remedium."

" Two other caſes of Lepra, and Cancer of the noſe, had occurred, when my father was about writing to me laſt. And, as by particular deſire, the Petroleum will be uſed in them, I ſhall beg leave to ſubmit to your inſpection, whatever farther may take place in the employment of it. You will obſerve, that

I mention the green tar only. The other ſort is black, and I believe is leſs eſteemed, by the negroes and others, who have occaſion to make uſe of it."

" Every tar hole, ſays my correſpondent, that I have ſeen, has been at the foot of an hill, or in or near a gully. The ſoil is various, but generally a ſand. The holes are nearly full of water, and the tar ſwims on the ſurface. The Green, being thin, is taken off with the hand; and the Black with a ſpoon, or the like. The water in the hole is commonly cool, and ſeldom two feet deep. When it overflows, the tar ſometimes runs out. In the rainy ſeaſon, very little Petroleum is collected; but in the dry time of the year, a good hole will yield half a gallon daily, and, about noon, it produces moſt."

Mr

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Mr Thomas Guillan, Surgeon in Antigua, in a letter to Dr Duncan, gives him the following account of a ſingular appearance in the ventricles of the heart, diſcovered on the diſſection of a negro girl.

"On the 25th of June laſt, I was called to viſit a negro girl, about fourteen years of age, the property of Charles Manning, Eſq. I found her very much emaciated, complaining of flying pains in the cheſt, with a quick pulſe, and ſlight degree of fever, attended with a more conſiderable palpitation at the heart, than I had ever before obſerved. She had no appetite for food, or even for drink. She complained of great vertigo, which, I imagined, proceeded more from general debility, than any other cauſe.

"Mr Manning informed me, that ſhe had, for ſeveral months, been in the ſame ſituation, although by no means ſo weak, as ſhe then was.

was. He obſerved, that ſhe had formerly been affected with cough, but that it had left her ſome time before I ſaw her. He added, that ſhe would ſometimes drop down ſuddenly, upon uſing any violent exertion; and that ſhe was incapable of any hard labour. Her complaints, of late, had increaſed much, while her ſtrength as rapidly declined. Her catamenia had never appeared.

"Several different medicines were tried, by my advice, as well as that of Dr Samuel Athill, who alſo viſited her. But her ſtrength continuing to decline very rapidly, ſhe died on the 29th of June.

"I opened the body early next morning. Upon examining the thorax, I found no adheſion of the lungs to the pleura; nor indeed any other mark which could indicate inflammation. The colour of the lungs was perfectly natural; and upon cutting into them, I could diſcover neither tubercles, nor any ſigns of inflammation. And in the bronchial veſſels, I found neither mucus nor pus.

"The heart was remarkably large, which I ſoon found to proceed from the comparative magnitude of the ventricles, to that of the auricles,

auricles, which were preternaturally ſmall indeed. Upon opening the ventricles of the heart, I found in each of them, but, particularly in the left, a conſiderable quantity of ſoft white-coloured matter, which had every appearance of being real fat. The quantity of this matter was ſo conſiderable, that in a collapſed ſtate of the heart, it would have filled up about one fourth of the cavities. In none of the other viſcera, could I diſcover any marks of diſeaſe; ſo that I cannot help imagining, that the cauſe of her complaints, proceeded from this affection of the heart alone. But how a depoſition of fat could take place in an organ ſo ſubjected to muſcular action, is more than I can pretend to explain."

* * * *

An ingenious medical friend, has communicated to Dr Duncan, the following ſingular particulars reſpecting his own caſe.

"I

" I have been, for ſome years, ſubjected to a diſeaſe, which has afforded me an opportunity of making obſervations on it, which, as far as I know, are new. About ſix years ago, my hands began to be affected by a diffuſed dark red ſwelling, attended with heat, and a ſort of ſtinging pain. This has, ſince, returned every winter; and its attacks are becoming more frequent, and the ſypmtoms more ſevere. No veſicles, however, are formed; but it terminates by a deſquamation of the cuticle. I feel a degree of liſtleſſneſs and ſlight pyrexia; but ſo trifling, that I ſhould not perceive it, if I did not know that it generally attends the diſeaſe; for I have no doubt that the diſeaſe is a ſpecies of Eryſipelas, or of the Phlogoſis Erythema of Dr Cullen's noſology.

" The ſymptoms are always aggravated by heat or cold, eſpecially the latter, which ſeems to be often the exciting cauſe: They are aggravated alſo, by the uſe of ſpirituous liquors in ſmall quantity, and even by a full meal of animal food. Though there be a preternatural heat in the affected parts, when expoſed to a moderate warmth, yet the common temperature of the atmoſphere produces a ſenſation

of

of great cold; and I am obliged to wear gloves, even in a room, unleſs it be pretty warm. My fingers, when affected with the cold, grow livid, and benumbed.

"The complaint yields to the antiphlogiſtic plan, though very ſlowly. During an attack in 1788, I happened to drink wine pretty freely; and on the morning after, I found myſelf perfectly cured. I was unwilling to attribute this to a practice that ſeemed ſo prepoſterous; but, to ſatisfy myſelf, I ventured to try the ſame method again; and I have repeatedly ſince found, that it produced the ſame effect. I have obſerved alſo, that hard exerciſe, ſuch as walking faſt for ſome time, eſpecially againſt a briſk wind, will ſuddenly remove all the ſymptoms. I once tried electricity, by taking ſparks from the affected parts. This removed, for the time, the uneaſy prickling ſenſation, and produced a glow of warmth; and, in two or three days, the diſeaſe diſappeared. At this time, however, I was uſing cathartics.

"From theſe circumſtances, I am inclined to adopt the opinion of Dr John Gahagan, delivered in his inaugural diſſertation, De Inflammatione,

Inflammatione, publiſhed at Edinburgh in 1790. Whether inflammations may, with propriety, be divided into active and paſſive, I dare not venture to determine; but, in my caſe, there ſeem to be many proofs of a diminiſhed tone of the parts affected. On this principle, may not all the phænomena be explained? as, by an increaſed impetus of the blood within certain limits, the veſſels of the affected parts may perhaps ſuffer themſelves to be preternaturally diſtended. But, when a ſufficiently powerful ſtimulus is applied, the irritability of the muſcular fibres may be excited to ſuch a degree, as to enable the veſſels to unload themſelves."

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Dr Brandreth of Liverpool, in a letter to Dr Duncan, communicates to him the following obſervations:

"The

" The advantages ariſing to patients, under various ſtates of the Typhus fever, from waſhing with cold water and vinegar, have been, in many caſes of my practice, for ſeveral years paſt, very conſpicuous; and, in no inſtance within my obſervation, has this mode of treatment been productive of any unpleaſant effect. I generally order it to be done, night and morning, with a large ſponge. The patients are well dried, and put to bed. They uſually expreſs great pleaſure from its effects, and a ſenſe of great refreſhment. It invariably leſſens, not only the heat, but, in a ſingular manner, the hardneſs of the ſkin. It diminiſhes the frequency of the pulſe, and often leſſens, nay ſometimes removes, for a time, the delirium. I have known patients, who refuſed not only medicine, but every kind of food, readily prevailed on, after the waſhing, to take whatever their friends offered. It is not improbable, that, ere long, I may lay a ſtate of this practice before the public.

" The uſe of large doſes of opium, in certain caſes of inſanity, has, I believe, been more frequently adminiſtered in this town than any other; and, in many caſes, with wonderful

ful good effects. The first time I employed it, was about twelve years ago; and, since that time, I have given it to several patients. The practice is pretty general here. Dr Binns has given two scruples of solid opium at one dose, and, in four hours afterwards, one scruple, which restored his patient almost immediately. Dr Currie has had success from the same treatment. The largest dose I have given, was four hundred drops of well made Tinctura Thebaica. The relief was like a miracle. From the greatest possible furor, in a few hours my patient was calm and rational."

* * * *

The following extract of a letter from the learned Professor Hebenstreit of Leipsic, to Henry Hodgson M. D. has been lately communicated to us, and we presume will not be thought unworthy of the attention of the reader.

" Ern.

" Ern. Hebenſtreit, M. D. & P. viro ampliſſimo Henrico Hodgſon, M. D. Raſeniæ.

" Ne omni utilitate vacua ſit epiſtola mea addam pauca de noviſſimis quibuſdam chemicorum noſtrorum inventis.

" Noſti quam fallax ſit tædiique plenum ſcrutinium vinorum plumbo adulteratorum quod cum liquore probatorio vulgo inſtituitur. Aliud nuper propoſuit Hahnemannus, M. D. Chemicus haud ignobilis. Paratur ex æqualibus partibus Oſtrearum calcinatarum et Sulphuris; Hepar Sulphuris calcareum. Hujus drachmæ duæ, intermiſcentur Cremoris Tartari drachmæ ſeptem; affundantur aquæ libræ duæ. In lagena ad $\frac{3}{4}$ plena et bene obturata concutiendo per horæ quadrantis ſpatium agitantur. Liquor ſepoſito ſedimento transfunditur in parvas phialas optime obturandas. Sic naſcitur *Aqua acidula hepatiſata*, cujus ea vis eſt ut guttulæ paucæ, vinum noxiis metallis infectum nigrum reddant. Sincerum, vel innoxio ferro contaminatum limpidum relinquant. Simile quid, ſed non idem, habet Foureroy."

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Dr John Bell of London, in a letter to Dr Duncan, gives the following article of medical news, which, he obſerves, has been communicated to him on unqueſtionable authority.

" Some years ago, a Lieutenant-Colonel, in the ſervice of the Duke of Wirtemburg, was attacked with a violent headach, for which he could aſſign no cauſe. As the ſeverity of the complaint, deprived him of reſt, and prevented him from diſcharging his duty, he conſulted many eminent medical men, from whoſe preſcriptions, he derived little or no advantage. The operation of the trepan was even recommended, and ſubmitted to. Some violent febrile ſymptoms ſucceeded, but the wound, at length, healed favourably, though the pain ſtill continued as before. Deſpairing of relief from medicines, he totally laid them

them aſide, when he accidentally met with a perſon, who undertook to relieve his complaint. The remedy recommended, was of a very ſimple nature; but its efficacy was pronounced to be infallible, provided the patient would perſevere, for a certain time, in the uſe of it. Willing to do any thing that promiſed even an alleviation of ſo diſtreſſing a diſorder, he undertook to drink ſix quarts of ſpring-water, daily, for three months. He had, at firſt, no great faith in the remedy; but as cuſtom ſoon reconciled him to it, he perſevered. He was the more induced to this, on finding his complaint mitigated, at the end of a few weeks. Within the time preſcribed, it was entirely removed; and, after having been upwards of eighteen months in a ſtate, which deprived him of all enjoyment of life, he has now been nearly three years free from any attack of his diſorder. No particular regimen was enjoined, except the cautiouſly avoiding exceſs, either in eating or drinking. I expect I ſhall hereafter be able to communicate to you, a more full account of all the particulars of this extraordinary cure, as the diſeaſe often baffles all our attempts to remove it."

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The Royal College of Phyſicians of Edinburgh, have been, for ſome time paſt, engaged, in preparing for publication, a new edition of their Pharmacopœia. And although it be little more than eight years, ſince the publication of the laſt edition of that work, yet, from the gradual progreſs of medical ſcience, and particularly from the many improvements which have, of late, been made in pharmaceutical chemiſtry, there can be no doubt, that it will now appear with very conſiderable alterations.

This work is already in the preſs, and will probably be publiſhed in a few months.

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Dr John Gardiner, of Edinburgh, already favourably known to the medical world, by his

his ingenious treatiſe, intituled, " Obſervations on the Animal œconomy," has prepared for publication, a new work upon the Gout, which, we are perſuaded, will well deſerve the attention, both of the medical practitioner, and of thoſe, alſo, ſubjected to frequent returns of that painful diſtemper.

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Dr Alexander Hamilton, Profeſſor of Midwifery, in the Univerſity of Edinburgh, who, ſome months ago, publiſhed a new and improved edition of his work, intituled, " Outlines of the Theory and Practice of Midwifery," has, at preſent, in the preſs, a new edition alſo, of his Treatiſe of Midwifery, comprehending the management of the complaints of females, and the treatment of children in early infancy. This treatiſe, which firſt appeared about ten years ago, and then met with a very favourable reception, will now be pre-

ſented to the public, with conſiderable alterations and additions.

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Dr Francis Balfour, from Calcutta, who lately publiſhed, at Edinburgh, a treatiſe on putrid inteſtinal remitting fevers, in which, he attempted to inveſtigate and define, the laws of the febrile ſtate, and Sol-Lunar influence, and to apply thoſe laws, to explain the nature of the various forms, criſes, and other phænomena of fevers, has at preſent in the preſs, at this place, ſome additional obſervations, tending to confirm the doctrines which he formerly delivered.

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Dr Thomas Trotter, long a Surgeon in the Navy, who ſome time ago publiſhed on Sea Scurvy, a diſeaſe in which he has had extenſive practice, has at preſent in the preſs, a new edition of his work, which will probably be

be publiſhed early in the year 1792. This publication, we are told, though under the title only of a new edition, may yet be conſidered as a new work. For, from farther obſervation, in actual practice and much reflection on the ſubject, Dr Trotter is now of opinion, that the doctrine of Putreſcency is equally untenible with thoſe of Dr Milman and others, againſt which, he had formerly urged ſtrong and even inſurmountable objections. He now attempts to eſtabliſh a new proximate cauſe, ſupported on the method of cure, and on the doctrines of Pneumatic Chemiſtry, as it has of late been ſtyled.

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A new edition of Dr Cullen's Firſt Lines of the Practice of Phyſic, is now in the preſs, at Edinburgh, and will probably be publiſhed in a very ſhort time. We need hardly obſerve, that this work was originally intended as a text-book for the lectures of the ingenious and experienced author, while he filled the practical chair in the Univerſity of Edinburgh. But as ſtudents

can no longer have an opportunity of hearing his explanatory obſervations; to this edition, notes, we are told, are added, illuſtrating abſtruſe points, and containing the formulæ and doſes of medicine, which, in the text, are mentioned only in general terms.

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A new edition of Dr Cullen's Synopſis Noſologiæ Methodicæ, is alſo about to be publiſhed, in two volumes, 8vo, and ſaid to be more correct than any former one.

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A new edition of the Edinburgh new Diſpenſatory, intended as an improvement of that of Dr Lewis, is nearly ready for publication. Beſides many corrections of the former work, and additional obſervations reſpecting different articles; in this edition, a full account is given of the new doctrines in chemiſtry, which have lately been publiſhed by Mr Lavoiſier

voiſier. This account is drawn up by Dr Rotheram, a gentleman well known to the medical and philoſophical world, by his defence of the ſexes of plants, and ſeveral other ingenious publications.

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The treatiſe on the Venereal diſeaſe, by Mr Benjamin Bell, Surgeon in Edinburgh, which we mentioned in our laſt volume, is now in the preſs, and will probably be publiſhed in a few months.

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Dr William Farquharſon of Edinburgh, has prepared for publication, the reſult of experiments on inoculation for the Small-pox, made with a view to remove the prejudices of the common people againſt the practice, by pointing out its perfect ſafety, and endeavouring to ſhew the propriety of parents, who are out of the reach of medical aid, inoculating their

their own children. This treatiſe, which is intended to be addreſſed to the clergy of Scotland, will, probably, be publiſhed in the courſe of the enſuing winter.

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Mr Robert Kerr, ſurgeon in Edinburgh, already well known to the learned world, by his tranſlations of the Elements of Chemiſtry in a new ſyſtematic order, by Mr Lavoiſier, and of an Eſſay on the new Method of Bleaching, by means of oxygenated muriatic acid, by Mr Bertholet, has diſtributed propoſals for printing, by ſubſcription, a tranſlation of the Animal Kingdom, or a ſyſtematic arrangement, nomenclature, and deſcription, of every known animal, containing a complete account of all the genera, ſpecies, and varieties of quadrupeds, birds, amphibious animals, reptiles, ſerpents, fiſhes, inſects, and worms, included in the works of the celebrated Sir Charles Linnæus, from the improved edition, with numerous additions, of the Syſtema Naturæ, by Profeſſor Gmelin, of the univerſity of Gottingen, together

ther with large additions from other zoological writers, reduced to the Linnæan method of claſſification.

To ſtudy the works of creation with intelligence, is the excluſive privilege of man, and highly exalts his dignity above all other animated beings. Every means, therefore, which can facilitate the acquiſition of this vaſt and noble object of human knowledge, muſt certainly be conducive to promote the moſt rational happineſs of mankind.

For the attainment of this Philoſophy of Nature, it is neceſſary to poſſeſs ſome knowledge of the objects of creation, as they are connected with each other in one vaſt chain of being, and as arranged by nature under greater or leſſer links of relation. Hence, in all ages, numerous attempts have been made to reduce the apparently endleſs confuſion of natural bodies, under ſuch a ſyſtem of nomenclature, arrangement and deſcription, as might render the acquirement of theſe views as eaſy and as familiar as poſſible.

It is not neceſſary to give a comparative view of the merits of different ſyſtems; for, it will readily be granted, that the palm of excellence

cellence has been allowed, by the learned of every country in Europe, to the arrangement of the great Linnæus, as contained in his juſtly celebrated work, the Syſtema Naturæ. It will not therefore be deemed an idle employment, to attempt to tranſlate into Engliſh, a work of ſuch general importance, and which contains ſo much intereſting information. And we ſincerely hope, that adequate encouragement may be given to it by the public.

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Dr Kirkland of Aſhby de la Zouch, already well known by his valuable writings on different ſubjects in medicine and ſurgery, is now printing a work at Warrington, on the utility of Opium in certain ſpecies of Apoplexy and Palſy.—Dr Haygarth of Cheſter, engages the ſame preſs with the ſketch of his plan for exterminating the Small-Pox, which is, we are told, nearly printed off.

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The Literary and Philoſophical Society of Mancheſter, after a temporary interruption, have again reſumed their meetings. They have received many intereſting communications, and there is reaſon to hope, that they will be able to offer a fourth volume of Memoirs to the public, ſome time during the courſe of next year.

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Sir Joſeph Banks, Preſident of the Royal Society of London, with that liberal ſpirit and love for Science, which have long diſtinguiſhed his conduct, has been at the expence of having engraved, and printed on a fine paper in folio, " Icones Selectæ Plantarum quas in

in Japonia collegit et delineavit Engelbertus Kæmpfer, ex archetypis in Muſeo Britannico aſſervatis." The work contains fifty plates, and is dedicated to the Truſtees of the Britiſh Muſeum. It is not intended for ſale, but is given away by the generous editor to friends, public libraries, &c.

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Profeſſor Schreber is at preſent engaged in publiſhing, at Francfort on the Maine, a new and improved edition of the Genera Plantarum of Linnæus.

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The Abbé Vitman has publiſhed, at Milan, a proſpectus of a work which he intends to print in ſix volumes octavo, intituled, "Summa plantarum

plantarum quæ hactenus innotuerunt methodo Linneana per genera et ſpecies digeſta."

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Propoſals have been diſtributed for printing, at Berne, a new edition, being the third, of Haller's hiſtoria ſtirpium indigenarum Helvetiæ. Meſſrs Haller and Wittembach, who undertake to ſuperintend it, will be aſſiſted by the communications of many Swiſs botaniſts. Beſides upwards of one hundred and twenty new ſpecies, this edition will include a great number of Synonyma from Linnæus, Reichard, Murray, &c. The editors hope to be able to publiſh it about Eaſter 1792.

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The American Philoſophical Society at Philadelphia, to whom we are already indebted

ed for two volumes of Tranſactions, intend ſoon to publiſh a third. The papers which are to form it, are in the hands of one of the members, who is employed in arranging them for publication.

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Dr John Clark of Newcaſtle, has been, for ſome months paſt, engaged in printing a new edition of his book, on the Diſeaſes in Hot countries, particularly in the Eaſt Indies. He has now extended the ſame method of cure there propoſed, to ſeveral of theſe diſtempers when occurring in this country. The work, therefore, will now appear under the following title, "Obſervations on the diſeaſes in long voyages to hot countries, eſpecially on thoſe which prevail in the Eaſt Indies, and on ſeveral of the ſame diſtempers, as they appear in Great Britain." The chief improvement, in the preſent edition, conſiſts, we are told, in recommending the uſe of Mercury

cury in Dyſentery, and in Acute Rheumatiſm, as well as in the chronic ſtate of that diſeaſe. This practice, we hear, Dr Clark has followed for ſeveral years paſt, and, he thinks, with ſucceſs far ſuperior to that which attends the common modes of treatment.

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Dr Thomas Garnet, of Harrogate, in a letter to Dr Duncan, gives him the following account of an intended new publication on the mineral waters of that place.

" I have been lately engaged in a ſeries of experiments on the mineral waters of this place, which, I hope, will throw ſome light on their chemical nature, which has hitherto been but little known. I have diſcovered, both in the ſulphurated and chalybeate waters, a ſpecies of air, which has not been ſuſpected by the chemiſts who have attempted to analyſe them. This air is the azote of Mr

Lavoiſier, being the elaſtic fluid which, with regard to quantity, forms ſo conſiderable a part of our atmoſphere. For, acording to him, the air of our atmoſphere conſiſts of two thirds of azote, and one third of oxygen, or pure vital air. Though I procured this air from the mineral waters, I could neither combine it again with them, or with common water. It is looſely attached to the water, and the greateſt part of it is ſeparated, before the fluid arrives at its boiling heat. This air ſeparates ſpontaneouſly, both from the chalybeate and ſulphur-waters; and from ſome of the latter, in ſuch large quantities, that in leſs than five minutes, I have collected a quart bottle full of it, by holding the bottle filled with water, and inverted, into the well, with a funnel in its mouth, to catch the bubbles as they riſe. I have repeated my experiments ſo often, that I have no doubt with regard to the nature of this fluid.

"With regard to the azote, found in the ſulphur-waters, we have reaſon to ſuſpect, from many experiments, that the hepatic air attracts the oxygen from the atmoſpheric air, which is combined with the water, and, with

it,

it, forms ſulphur; and that the ſulphur which is depoſited in the crevices of the channels in which the water runs, is derived from this ſource, as the water itſelf contains not a particle of ſulphur. Some of the wells which are much expoſed to the air, as well as the large open veſſels of water collected for baths, after ſtanding ſome hours, are covered with a pellicle of real ſulphur, which is, moſt probably, formed by the union of the hepatic air with the oxygen of the atmoſphere.

"Notwithſtanding the opinion of Mr Lavoiſier, that ſulphur is a ſimple body, I have ſtrong reaſons for ſuſpecting that it is a compound, the radical principle, or baſe, of which, is hepatic air; and that this hepatic air, united with a certain portion of oxygen, forms ſulphur; with a greater quantity, it forms volatile ſulphureous acid; and, with a ſtill greater quantity, it forms the vitriolic, or ſulphureous acid. I am now engaged in a ſet of experiments, by which I hope to determine this point; which I intend to lay before the public, in the courſe of next year."

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The following program has been iſſued by the Medical Society of London, reſpecting their prize-medals.

The Society reſolve to give, annually, a gold medal, called the Fothergillian Medal, of ten guineas value, to the author of the beſt diſſertation on a given ſubject, to which the learned of all nations are invited as candidates.

The medal for the year 1792, will be adjudged to the author of the beſt diſſertation in anſwer to the following queſtion: What are the effects of mineral poiſons, upon living animals, and, more particularly, upon mankind, when taken internally, and applied externally; and what are the moſt efficacious means of counteracting theſe effects?

Queſtion for the year 1793: What are the effects of vegetable poiſons upon living animals, and, more particularly, upon mankind, when taken internally, or applied externally; and

and what means are moſt efficacious in counteracting theſe effects?

For the year 1794: What are the effects of animal poiſons, either by internal or external applications, upon living animals, and eſpecially upon mankind; and what are the moſt efficacious means of counteracting theſe effects?

For the year 1795: What are the effects of aërial poiſons, upon living animals, and eſpecially upon mankind; and what are the moſt efficacious means of counteracting theſe effects?

It is deſired, that every anſwer to any of the foregoing queſtions, may, as far as poſſible, be founded on actual experiment, or well-authenticated facts: and that the ſeveral competitors will, if practicable, aſcertain the ſpecific or characteriſtic ſymptoms of each particular poiſon, in order to aſſiſt medical practitioners, not only in their endeavours to afford relief, but in the evidence they may be required to give, upon queſtions of this nature, in any court of juſtice.

The following regulations are to be obſerved reſpecting this medal.

1. Each diſſertation ſhall be delivered to the Secretary in the Latin, Engliſh, or French language, on or before the firſt day of November of the preceding year; and the adjudication of the medal, ſhall take place in the laſt week of the enſuing February.

2. With each diſſertation, ſhall be delivered a ſealed packet, with ſome motto or device on the outſide; and within, the author's name and deſignation; and the ſame motto or device ſhall be put upon the diſſertation, that the Society may know how to addreſs the ſucceſsful candidate.

3. No paper, with the name of the author affixed, can be received; and if the author of any paper ſhall diſcover himſelf to the council, or to any member thereof, ſuch paper ſhall be excluded from all competition for the medal.

4. All diſſertations, the ſucceſsful ones excepted, ſhall be returned, if deſired, with the ſealed packets unopened.

The Medical Society give alſo two ſilver medals annually; one of which is adjudged for the beſt eſſay read before the Society, within the

the year, written by a fellow; the other, for the beſt eſſay by a correſponding member, or by any perſon not a member of the Society.

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The Academy of Sciences and Belles Lettres at Lyons, have propoſed the following prize-queſtion for 1791.

Quelles ſont les cauſes de l'aſcenſion de la ſéve dans les arbres au printemps, et celles de ſon renouvellement dans le mois d'Aout ou de Juillet ſuivant le climat?

The prize is a gold medal, value three hundred livres.

The ſame Society have propoſed the following queſtion for 1792.

Trouver le moyen de rendre le cuir impermeable à l'eau, ſans alterer ſa force ni ſa ſoupleſſe, et ſans en augmenter ſenſiblement le prix.

This prize is alſo a gold medal, value three hundred livres.

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The Philoſophical Society of Rotterdam, have propoſed the following prize-queſtions for 1791.

1. Quels ſont les cauſes et les moyens qui hatent la putrefaction, la moderent, ou l'arretent, ſoit dans le corps, ſoit dehors? Quels avantages peuvent reſulter de ces connoiſſances, pour les diverſes ſciences, principalement pour l'art de guerir?

2. Quelles ſont les meilleurs machines pour venir au ſecours des ſourds, ou de ceux qui ont l'oreille dure? Y a-t-il de regles determinées qu'il faut ſuivre pour la conſtruction et l'uſage de ces machines?

3. L'endurciſſement des glandes, le cancer, et les fievres intermittentes, ſont-ils propres à l'homme? et ci cela eſt, quelles ſont les cauſes de cette particularité, quels ſont les caractéres par leſquels les deux premieres maladies ſe diſtinguent des autres de même eſpece? eſt on fondé de croire qu'on peut les prevenir et guerir

guerir auſſi heureuſement que les fievres intermittentes ?

4. Quel eſt le veritable uſage qu'on peut faire des obſervations meteorologiques ? De quelle utilité ſont-elles en particulier pour la medecine, ainſi que pour la ſocieté civile en general ? Quelle eſt la meilleure methode d'en faire l'application ?

The ſame Society have propoſed the following prize-queſtions for 1792.

1. Quelles ſont les parties conſtitutives naturelles de l'urine d'un homme ſain ?

2. Quelles ſont les maladies auxquelles les Européens de retour des Indes Orientales ſont ſujets ? Quelles en ſont les cauſes ? Quelles ſont les meilleurs moyens de les prevenir ?

The value of each prize is thirty ducats.

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The Royal Society of Medicine of Paris, have propoſed the following new prize-queſtions, beſides repeating and continuing ſeveral

veral of thoſe inſerted in our former volumes, as extracted from their programs.

1. A prize of 600 livres; memoirs to be ſent by the 1ſt of May 1792.

Determiner d'après les découvertes chimiques modernes et par des experiences exactes, quelle eſt la nature des alterations que le ſang éprouve dans les maladies inflammatoires, dans les maladies febriles putrides, et dans le ſcorbut.

2. A prize of 550 livres; memoirs to be ſent by the 1ſt of December 1791.

Y a-t-il quelque analogie entre le ſcorbut et les fievres de priſon de Pringle; les lentes nerveuſes d'Huxham, ou celles de vaiſſeaux, décrites par d'autres auteurs; et de quelle utilité ces recherches peuvent-elles etre pour le traitement de ces differentes eſpeces de maladies?

3. A prize of 600 livres; memoirs to be ſent by the 1ſt of May 1792.

Determiner s'il y a de ſignes certains par leſquels on puiſſe reconnoitre que les enfans naiſſent

naiſſent infectés de la maladie vénérienne; dans quelle circonſtance elle ſe communique des meres infectées aux enfans, de ceux-ci aux nourices, et reciproquement; quelle eſt la marche de cette maladie comparée avec celle dont les adultes ſont atteints; et quel doit en être le traitement.

4. A prize of 600 livres; memoirs to be ſent by the 1ſt of May 1791.

Determiner par des experiences exactes, 1. Quelle eſt la nature de l'humeur qui ſort par la voie de tranſpiration inſenſible. 2. Quelle eſt l'influence atmoſpherique ſur cette evacuation. 3. S'il exiſte des rapports avec la quantité de l'humeur que cette ſecretion fournit, et les mouvemens de la circulation, et de la reſpiration.

Memoirs on all theſe different ſubjects, muſt be ſent, with the uſual precautions for concealing the name of the author, addreſſed to M. Vicq-d'Azyr, rue de Tournon, and under cover to M. de Leſſart, Miniſtre de l'Interieur à Paris.

The

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The College of Phyſicians of Edinburgh, beſides being engaged in reviſing their Pharmacopœia, have at preſent ſeveral other ſubjects under conſideration, which may, we hope, tend ſomewhat to medical improvement in that city. They have appointed committees of their number, for taking particularly into conſideration the following ſubjects:

1. For conſidering in what manner houſes for the reception of lunatics in Edinburgh, and its environs, may be beſt regulated and improved.

2. For conſidering the moſt effectual methods of encouraging the practice of inoculation among the lower ranks.

3. For conſidering upon what plan vapour-baths could be moſt eaſily and advantageouſly eſtabliſhed in the city of Edinburgh.

4. For conſidering whether any improvements, or additional conveniences, could with eaſe be introduced into the practice of ſea-bathing in the neighbourhood of Edinburgh.

5. For conſidering upon what plan the bills

of

of mortality, kept for the city and neighbourhood of Edinburgh, may be moſt eaſily freed from their preſent defects, and brought to ſuch a ſtate of perfection, as to afford a foundation for reaſoning, both in medicine, and in political œconomy.

On all theſe ſubjects, reports have been given in, ſuggeſting different improvements; and ſteps have been taken by the College for carrying theſe ſuggeſtions into execution. We hope, in a future volume, to be able to give our readers an account of the advantages reſulting from them; and we flatter ourſelves, that what is thus introduced with benefit to the public at Edinburgh, may be adopted with advantage at other places.

At preſent, we ſhall only obſerve, that in conſequence of the report of the committee, reſpecting inoculation, the College of Phyſicians, in conjunction with the College Surgeons of Edinburgh, inſerted an advertiſement in the newſpapers, offering gratuitous inoculation to the poor, during the months of September and October: And they, at the ſame time, addreſſed the following circular letter to all the clergymen, of every perſuaſion, in Edinburgh.

" SIR,

"SIR,

"The Royal Colleges of Phyſicians and Surgeons of Edinburgh, have obſerved, with ſincere regret, the numerous deaths which have taken place from the natural ſmall-pox. Being fully convinced, that many lives may be ſaved by timely inoculation, they are very deſirous that the benefit of this important diſcovery ſhould be extended to the children of the lower claſs, in the ſame manner as it is at preſent enjoyed by thoſe in better circumſtances. They have, therefore, by public advertiſement, offered their aſſiſtance, gratis, to all who ſhall make application to them for that purpoſe, during the months of September and October.

"There can be no doubt, that the perſuaſion of the clergy, properly exerted, would have very conſiderable influence in removing thoſe prejudices which have hitherto prevented the practice of inoculation from becoming general; particularly, by convincing parents, that they are not guilty of any temptation of Providence, as ſome of them erroneouſly imagine, when they ſubject their children to inocula-

tion

tion with the view of preventing a fatal diſeaſe; but that, on the contrary, they will be highly culpable, if they neglect to employ the means with which Providence has furniſhed them, for preſerving the lives of their offſpring.

" We take the liberty, therefore, of giving you this information of the intended plan, and doubt not, that you will exert your beſt endeavours, for promoting an undertaking, which can have no other object in view, but the public good. We are,

SIR,

Your moſt obedient ſervants,

ANDREW DUNCAN,
Preſident of the Royal College of Phyſicians.

WILLIAM INGLIS,
Preſident of the Royal College of Surgeons.

This letter has produced many very ſtrong admonitions in favour of inoculation, both from the pulpit, and in private. But beſides theſe, a truly pious and moſt reſpectable clergyman, has been at the expence of printing and diſtributing among the lower claſs, a ſmall pamphlet, intituled, " *A reply to the religious ſcruples againſt*

againſt inoculating the Small Pox," which contains plain, ſhort, and convincing anſwers, to the objections which ſome have made to this practice, in a religious point of view.

Although it cannot be alleged that theſe meaſures have at once had the effect of overcoming the prejudices of the vulgar, yet they have, at leaſt, had ſome influence. And as far as we have been able to learn, of a conſiderable number of children who have been inoculated gratis in Edinburgh, during the months of September and October, every one has not only recovered, but has had the diſeaſe in a very mild form; which will probably be more powerful than any arguments, in combating prejudice, among the vulgar, and leading to more extenſive inoculation in future years.

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We announce, with regret, the deaths of the following eminent medical practitioners.

October 1789, at Philadelphia, Dr John Morgan, Profeſſor of the Theory and Practice of

of Medicine in that city, Fellow of the Royal Society of London, and Member of the Royal Colleges of Phyſicians, both of London and Edinburgh. Dr Morgan obtained the degree of Doctor of Medicine from the Univerſity of Edinburgh, in the year 1763; and, on that occaſion, wrote an ingenious inaugural diſſertation, De puris confectione; but he could by no means be conſidered, which he ſeems to have imagined, as having the merit of being the inventor of the opinion which he held on this ſubject; for the ſame idea had long before been publiſhed by the late celebrated Dr Thomas Simſon of St Andrews, in his diſſertations De re medica, who, to uſe his own words, conſidered an iſſue, as being a Nova quaſi glandula.

March 1790, at Philadelphia, Dr Abraham Chovet in the 86th year of his age. Dr Chovet viſited patients till within a few weeks of the time of his death. He made it his dying requeſt, that no bell ſhould be tolled at his funeral, as he did not wiſh to diſturb the ſick

by ſuch an unneceſſary, and, to them, ſuch a diſtreſſing noiſe.

February 10th, 1791, at Oldenburgh, Dr George Chriſtian von Oeder, author of the Flora Danica. He was born at Anſpach, and ſtudied medicine at Gottingen. He was particularly attached to botanical ſtudies; and, on the recommendation of the celebrated Dr Haller, he was appointed Profeſſor of Botany at Copenhagen.

April 3d, Dr John Berkenhout, well known to the literary world, by many learned publications. In early life, he was an officer, both in the Ruſſian and Britiſh armies. When he ſtudied medicine at Edinburgh, in the year 1764, he was known by the name of Captain Berkenhout; and at that time, he publiſhed a botanical lexicon, a very uſeful work for the young ſtudent in that ſcience. In 1765, he obtained the degree of Doctor of Medicine from the Univerſity of Leyden; and, under that title, became the author of the Pharmacopœia Medici, and ſeveral other works in the line

line of medicine and medical philoſophy. But his talents were by no means confined to the cultivation of medicine alone. Beſides writing on many different ſubjects, he was employed alſo in the ſervice of the State. He accompanied the commiſſioners who were ſent to New York, with the view of obtaining a reconciliation between America and Great Britain; and he was impriſoned by order of Congreſs.

As a reward for his ſervices and his ſufferings, he afterwards enjoyed a penſion from Government.

April 15th, Dr Alexander Garden, formerly an eminent practitioner in Charleſtown, South Carolina.

April 16th, 1791, at Edinburgh, Dr John Stedman, Phyſician in that city, Fellow of the Royal College of Phyſicians, &c. Dr Stedman, during a long life, uniformly ſupported, among all who had the happineſs of being acquainted with him, the character of an able phyſician, an elegant ſcholar, and an a-

miable man. He was for ſome time Phyſician to the Royal Infirmary at Edinburgh; but finding himſelf unable for the duties of the office, in conſequence of advanced age, and an impaired ſtate of viſion, he reſigned the office. Even the almoſt total loſs of his ſight, however, did not prevent the continuance of his literary purſuits; and the public are indebted to him for ſeveral ingenious productions, both in the line of Medicine, and of Belles Lettres. More than twenty years ago, he publiſhed a volume of Phyſiological eſſays, containing many ingenious obſervations on the pulſe, on menſtruation, on inſalutary conſtitutions of the air, &c. He was the author, alſo, of a very elaborate diſſertation on the conſtitution of the Roman legion. After being far advanced in life, he publiſhed an elegant poetical tranſlation into Engliſh, of Horace's Art of Poetry. And an anonymous work, intituled, "Lælius and Hortenſia, or Thoughts on Taſte and Genius," is very generally attributed to him.

May 22d, at Gottingen, Dr John Andrew Murray, Knight of the order of Waſa, aulic Counſellor

Counſellor to his Britannic Majeſty, ordinary Profeſſor of Phyſic and Botany, and ſuperintendant of the Botanical Garden at Gottingen.

Profeſſor Murray was a native of Sweden, and born at Stockholm, on the 27th of January 1740. He was the ſon of a reſpectable clergyman of that city; and to his father he was indebted for the early cultivation of thoſe talents, which ſoon diſtinguiſhed him among his fellow ſtudents. At the age of ſixteen, he was ſent to the Univerſity of Upſal. There his ſuperior abilities, and the bent which his mind had acquired to purſuits of natural hiſtory, recommended him to the notice and protection of the illuſtrious Linnæus. A reciprocal eſteem and attachment ſoon commenced between them, which continued uninterrupted till the death of Linnæus; and ſeveral paſſages, in writings which Profeſſor Murray has publiſhed ſince that event, teſtify his regard for the memory of his amiable preceptor.

When Dr Murray had finiſhed his courſe at Upſal, he formed the reſolution of travelling

into other countries of Europe, with the view, not only of extending his knowledge, but alſo, of freeing himſelf from thoſe prejudices which are but too apt to attach themſelves to one, entirely confined within the limits of his native country. But deeming it diſgraceful to viſit other countries, when he had but a ſuperficial acquaintance with his own, he devoted the Summer of 1759, to a tour through Sweden. In this tour, his attention was chiefly directed to objects in natural hiſtory and œconomy. On his return to Stockholm, he firſt determined to viſit the Univerſity of Gottingen, which was in high repute as a ſchool of Phyſic, and in which his brother had obtained a Profeſſorſhip in Philoſophy. At Gottingen, he obtained the degree of Doctor of Medicine in the year 1763; and on that occaſion, he publiſhed, and defended an inaugural diſſertation, de fatis variolarum inſitionis in Suecia. The year after his graduation, he was appointed extraordinary Profeſſor of Phyſic at Gottingen; and on the death of Profeſſor Buttner in 1769, he ſucceeded to the botanical chair,

and

and to the rank of ordinary Profeſſor of Medicine.

Profeſſor Murray has long been well known to the medical and philoſophical world, by many valuable publications. Among many others, we may mention the following:

Enumeratio vocabulorum quorundam, quibus antiqui linguæ Latinæ auctores in re herbaria uſi ſunt. 4to, Holm. 1756.

Commentatio de arbuto uva urſi. 8vo, Gottin. 1765.

De hydrophobia abſque morſu prævio. 4to, Baſil. 1765.

Hiſtoria inſitionis variolarum in Suecia, ad noviſſimum tempus protracta. 8vo, Gottin. 1767.

Obſervationes de vermibus in Lepra obviis, juncta leproſi hiſtoria, et de lumbricorum ſetis obſervationes. 8vo, 1769.

Prodromus deſignationis ſtirpium Gottingenſium. 8vo, Gottin. 1770.

Enumeratio librorum præcipuorum medici argumenti. 8vo, Lipſiæ, 1773.

Programma de tempore corticis Peruviani

in tuſſi convulſiva exhibendi. 4to, Gottin. 1776.

Diſſertatio de catechu. 4to, Gottin. 1779.

Oratio de limitanda laude librorum medicorum practicorum uſui populari deſtinatorum. 4to, Gottin. 1779.

De medendi tineæ capitis paralipomena. 4to, Gottin. 1782.

Difficultates in curatione morborum infantilium obvenientes. 4to, Gottin. 1782.

Diſſertatio de tempore exhibendi emetica in febribus intermittentibus maxime opportuno. 4to, Gottin. 1782.

De laude magnetiſmi ſic dicti animalis ambigua. 4to, Gottin. 1789.

From theſe different publications, the reader may form an idea of his extenſive and varied abilities in medical literature. But the works by which he has been more diſtinguiſhed than by any other, are, his two editions of the "Syſtema vegetabilium of Linnæus," and his "Apparatus medicaminum tam ſimplicium quam præparatorum et compoſitorum in praxeos adjumentum conſideratus."

Into

Into the firſt of theſe works, he has introduced almoſt every well aſcertained botanical diſcovery that has been made, ſince the publication of the lateſt editions of the Syſtema Naturæ by Linnæus himſelf.

The laſt work, as far as reſpects the vegetable kingdom, may be conſidered as the moſt valuable ſyſtem of Materia Medica yet extant. In it, the vegetables are arranged according to their natural orders. And the 5th volume concludes the Fungi, the laſt of his natural order; and is terminated with an index to the whole. In the preface, however, he announced his intention of publiſhing a ſupplementary volume, for the farther illuſtration even of the vegetable kingdom. But, although death has now put a period to his labours, yet there is reaſon to hope, that the materials which he has left behind him for the completion of this uſeful work, will fall into the hands of ſome able and induſtrious phyſician, who, by continuing and completing this publication, may, in ſome degree, diminiſh the loſs which medical ſcience has ſuſtained by his death.

June 4th, at Glaſgow, Dr Alexander Stevenſon, Profeſſor of Medicine in the Univerſity of that city. Dr Stevenſon was the ſon of an eminent phyſician in Edinburgh, well known by ſeveral ingenious papers in the Edinburgh Medical Eſſays. Dr Stevenſon obtained the degree of Doctor of Medicine from the Univerſity of Glaſgow, in the year 1749. When Dr Cullen, on being appointed a Profeſſor in the Univerſity of Edinburgh, left Glaſgow, Dr Stevenſon ſettled in that city, and ſoon became an eminent practitioner. When Dr Black was brought from Glaſgow to Edinburgh, Dr Stevenſon ſucceeded him as Profeſſor. But ſome years before his death, his academical duties were devolved upon his nephew, Dr Thomas Hope, who had been appointed Profeſſor in conjunction with him. He was juſtly diſtinguiſhed as an able and diſcerning Phyſician.

June 14th, 1791, at Knayton, Dr Charles Biſſet, an eminent practitioner, and author of ſeveral valuable publications; particularly an

eſſay

eſſay on the medical conſtitution of Great Britain. Dr Biſſet, after ſtudying medicine, entered, at an early period of life, into the army. Though not belonging to the corps of Engineers, he diſtinguiſhed himſelf ſo much in that line, as to obtain the notice and patronage of his late Royal Highneſs, William, Duke of Cumberland, and was by him raiſed to the rank of Captain. But being reduced to half-pay after the peace, which terminated the Flanders war, he reſumed his medical ſtudies, and made a diſtinguiſhed figure, both as a practitioner, and an author.

Aug. 22d, 1791, at Gottingen, Profeſſor Michaelis, deſervedly celebrated for his literary productions, particularly for his treatiſe De Angina Polypoſa.

Since

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Since the publication of our laſt volume, Dr John Lorimer of London, Dr William Moncrieffe of Briſtol, Dr Andrew Fillan of Dominica, Dr James Home of Edinburgh, Dr James Currie of Liverpool, Dr John Coakley Lettſom of London, Dr Nicolas Bindon of Edinburgh, Dr Thomas Arnold of Leiceſter, and Dr John Yule of Edinburgh, have been elected Fellows of the Royal College of Phyſicians of Edinburgh.

Dr Auguſtus Gottlieb Richterus of Gottingen, and Dr J. Gott. Walterus, of Berlin, have been elected Honorary Fellows of the College of Phyſicians of Edinburgh.

Mr Henry Johnſtone, Mr William Ritchie, and Mr John Walker, have been admitted Fellows of the Royal College of Surgeons of Edinburgh.

The

The following gentlemen have been admitted members of the Royal Society of Edinburgh :

June 4th, 1791.

James Clerk, M. D. of the iſland of Dominica.

Mr William Lochhead, ſurgeon, of Antigua.

Mr Alexander Anderſon, ſuperintendant of the Royal Botanical Garden, St Vincents.

William Roxburgh, M. D. Madras.

J. Braithewhaite, Eſq; London.

Mr Le Chevalier, of Paris.

John Burnet, Eſq; advocate, Edinburgh.

Charles Scott, M. D. London.

June 27th, 1791.

Robert Townſon, Eſquire.

James Anderſon, M. D. Madras.

Rev. Dr James Bell, Coldſtream.

State

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State of the Thermometer, Barometer, and Rain, during the year 1790, at mid-day, according to obſervations made about a mile from the city of Edinburgh.

MONTH.	THERMOMETER.			BAROMETER.			RAIN.
	High.	Low.	Med.	Higheſt.	Loweſt.	Medium	Inches.
Jan.	50	30	42	30.25	28.48	29.69	1.96
Feb.	54	38	47	30.12	29.40	29.77	1.75
Mar.	55	44	49	30.87	27.21	29.92	0.85
Apr.	55	38	46	30.25	29.25	29.04	2.53
May	61	42	54	30.21	29.10	29.68	2.49
June	73	51	60	30.02	29.10	29.67	2.90
July	68	54	63	29.91	28.82	29.52	1.86
Aug.	68	53	61	29.82	29.21	29.55	3.27
Sep.	62	46	55	30.12	28.90	29.67	2.67
Oct.	64	44	54	30.05	28.85	29.57	2.12
Nov.	50	35	43	30.35	28.85	29.64	2.51
Dec.	50	30	36	30.37	28.45	29.48	2.61
Whole Year.	73	30	50.8	30.87	27.21	29.60	27.52

State

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State of the Thermometer, Barometer, and Rain, during the year 1790, according to obſervations made at the apartments of the Royal Society of London.

Month.	Thermometer.			Barometer.			Rain.
	High. Deg.	Low. Deg.	Med. Deg.	Higheſt Inches.	Loweſt Inches.	Medium Inches.	Inches.
Jan.	52	32	40	30.47	29.27	30.07	0.96
Feb.	55	33	43	30.62	29.88	30.25	0.11
Mar.	56	33	45	30.65	29.83	30.26	0.12
April	58	35	44	30.30	29.38	29.86	1.47
May	66	47	56	30.14	29.50	29.90	2.89
June	86	53	60	30.35	29.49	30.03	0.70
July	73	53	62	30.20	29.29	29.84	1.70
Aug.	77	51	63	30.16	29.64	29.97	1.99
Sept.	68	45	56	30.42	29.31	30.00	0.36
Oct.	64	39	52	30.40	29.62	29.89	1.10
Nov.	53	32	44	30.40	29.02	29.81	2.51
Dec.	52	30	40	30.38	28.80	29.88	2.09
Whole Year.	86	30	50.9	30.65	28.80	29.98	16.00

SECT. IV.

List of New Books.

A NEW tranſlation of the Pharmacopœia of the Royal College of Phyſicians of London of the year 1787, with notes critical and explanatory, doſes of the ſeveral preparations, likewiſe a table of the quantities of opium and quickſilver in the compound medicines which contain them, and a liſt of the new names, together with Latin and Engliſh indexes. By an Apothecary. 8vo, London.

Practical hints on Opium conſidered as a poiſon. By R. Hamilton, M. D. 8vo, Ipſwich.

Thoughts, phyſiological, pathological and practical,

practical, with ſome caſes and anatomico-practical obſervations. By Allan Swainſton, M. D. 8vo, York.

An eſſay on fevers; wherein their theoretic genera, ſpecies, and various denominations, are, from obſervation and experience of thirty years, in Europe, Africa and America, and the intermediate ſeas, reduced to their characteriſtic genus, febrile infection, and the cure eſtabliſhed on philoſophical induction. By Robert Robertſon, M. D. a Surgeon of his Majeſty's Navy. 8vo, London.

On the principle of vitality, a diſcourſe delivered in the firſt church of Boſton, before the Humane Society of the commonwealth of Maſſachuſets. By B. Waterhouſe, M. D. Profeſſor of the Theory and Practice of Phyſic in the Univerſity of Cambridge, New England. 4to, Boſton.

A treatiſe on the inoculation of horſes for the Strangles, in which is clearly laid down the manner and time of the operation, the preparation neceſſary previous thereto, and the mode of treatment during the continuance of the diſorder; the whole being the reſult of long

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