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To Mr. YOUNG.

SIR,

NOTHING but my close engagements, in bringing a new edition of "MORBID POISONS" before the public, should have induced me so long to disregard your letter in the 87th number of the Journal; because nothing is so agreeable to me as those questions, which may render a theory better understood, or, by proving its fallacy, engage the framer in a new set of inquiries.

Let me first observe, that I have never yet entered into the question, whether hydatids found in the liver have a life and economy independent of the animal in which they are found, excepting as they draw their nourishment from it: Satisfied of the truth of the position, having no claim to the discovery, nor any new arguments to offer in its support, it seemed more decent to transcribe the words of those to whose labour we are indebted. It does not indeed make a necessary part of my theory, which only goes to show, that there is the same reason to admit a separate existence in one species of cancerous breast as in the hydatids of the liver; and that as the human mamma is found a convenient nidus for the common hydatid, there is a presumption that other substances found in it, may have a similar economy.

The only proof we require of life is motion, independent of elasticity. In the common adipose cellular membrane, we have nothing like motion. There is, indeed, some elasticity in the fibres, but this is different from the motion of life, because it exists after death with the same force. The question at issue therefore is, whether the deposition of fat into regular cells, laterally attached to, yet, like the cells of a honey comb, having no communi-

 nication

nication with each other, which cells show a contractile power by the elevation of their contents, yet, which cannot be the effect of elasticity, because it ceases with life:—and whether such a process as this is to be imputed to the growth and multiplication of an animal like the hydatid, or whether it is to be considered as the mere adhesion of the sides of cells by the effusion of lymph? The effusion of lymph might consolidate the whole substance, as we find it obliterate the air cells of the lungs; but this is very different from the formation of regular and uniform cells. You observe very justly, that the sides of abscesses are thickened. But we see no muscular contraction in these sides, nor do we ever see a series of abscesses resembling each other in size and form, attached laterally to each other, and filled with a secretion which is found in every part of a healthy body; but in this particular part, increased in proportion as the disease advances.

You ask, whether it is possible to trace the line of distinction between the diseased fat, as it is called, or, as I term it, carcinomatous hydatids, and the healthy fat? Nothing Sir, is so easy; for it is impossible to mistake them. The colour of the diseased fat, or of the contents of carcinomatous hydatids, remains longer after exposure, the regularity of the papillæ is not less striking, and the facility with which each cell is emptied of fat, unconnected with fibres, make a distinction which can never be mistaken. But I could wish it to be remembered, that it is only one species of cancerous breast, which I call carcinoma, that exhibits this appearance. You will also recollect, that I have never met with this appearance excepting in cancer, seated in the breast or lips; and even in these parts the variety of cancers is so great, that my principal object was, to induce surgeons, by constantly examining the contents of amputated lumps, and recording the issue of their operations, to ascertain the probability of success in all future cases.

This last consideration will oblige me to be much shorter in my reply, than the long letter with which you have honoured me. It is unnecessary to dwell on your objection, that the hydatis lymphatica is propagated within the parent, by the bursting of which, the young ones escape, and that no such process can take place in cysts attached laterally to each other. A moment's recollection will remind you, that among the varieties of hydatis lymphatica, many are multiplied merely from the sides of each other. The same objection occurs to your observation, that some

of

of these carcinomatous hydatids are at a distance from each other, and separated by the natural structure of the breast. The same is found in the common hydatids of the liver.*

It is very true, that the constant sloughing of the cyst of an hydatid, or of a melicerous or steatomatous tumour, and their total incapacity, after being partially amputated, to form a healthy adhesion with the neighbouring parts, only marks an *uniform difference* between the cysts of these substances and the capsules of abscesses, or the tunics of original formed parts. It is not less true, that the uniformity of that difference is not a sufficient proof of the animalcular nature of these cysts: nor have I considered it as such; but it is at least a presumptive proof, that substances which preserve so constant a law, uniformly different from other substances subjected to the same operation, should have properties common to each other, and different from those whose actions are uniformly governed by a different law. That is, if the cysts of hydatids, or steatomatous and melicerous tumours, never can be made to granulate; if the capsules of abscesses always granulate, and the tunics of original formed parts when divided, either adhere or granulate, there must be some laws which uniformly govern each, and which by this uniformity, argue a similarity in the properties of those which are governed by similar laws.

When you speak of the cancerous wart, you remind me of another gentleman, I believe Mr. Burns, who makes the same objection to my theory. When Mr. Burns wrote, I conceived I might not have sufficiently explained myself; but as, since then, I have devoted a book to that subject alone, and in order to render myself more intelligible, to correct my ideas if faulty, to vary my mode of expression according to the ideas of others, and to bring every view of the question before the public, I have been indulged with the correspondence of the ablest men in the metropolis, and allowed to publish our correspondence:—after this, if I am not intelligible, I must despair of being so, and trust to the industry of others in recording what they discover, or to future opportunities of demonstrating in the recent subject what I find it in vain to describe in words.

* See my letter to Mr. Abernethy in the published Correspondence.

I am however, Sir, not the less obliged to you for your letter. The oftener the subject is brought before the public, the greater will the probability be, of hereafter finding if not a remedy, at least an alleviation of that dreadful disease, peculiarly fatal to a sex which is debarred the means of inquiry, and calling for our sympathy, not less on account of its fatality than the misery which attends every stage of its progress.

I am, Sir, &c.

Berner's Street, July 5, 1806. JOSEPH ADAMS.

Report of the Physical and Mathematical Class of the National Institute of France, on the Question, proposed to them by the Minister of the Interior: "Are those Manufactures which emit a disagreeable Smell prejudicial to Health?" Read at a late Sitting of that Body. By Messrs. Guyton Morveau *and* Chaptal.

THE solution of the question, whether the vicinity of certain manufactures be prejudicial to health, must appear the more important, as, by the confidence placed in the opinion of the Institute, it may in future form the ground of judicial decisons, when the suppression of a manufacture and the health of the people are concerned.

This inquiry is become the more necessary, as the fate of the most useful establishments, and even the existence of many arts, have hitherto depended on mere regulations of the police, and as several are driven to a distance from materials, from labour, or from a ready market for their commodities, by the efforts of prejudice, ignorance, or jealousy, continue an unequal struggle against the numberless obstacles opposed to their success. Hence, we have seen manufacturers of acids, of sal ammoniac, Prussian blue, beer, and leather, banished from the precincts of cities, and hence these, as well as similar useful establishments, are still daily complained of by fastidious neighbours, or invidious rivals.

So long as the fate of such manufactures is insecure; so long as an arbitrary legislation can interrupt, suspend, or fetter the exertions of the manufacturer; how can it be expected, that he will have the temerity to embark in projects of this nature? This state of uncertainty, these continual quarrels existing between the manufacturer and his

his neighbours, the constant apprehensions he must entertain respecting the fate of his establishment, contract and paralyse his exertions, and slowly impair his property, and spirit of enterprise.

It is then of material importance to the prosperity of the arts, that limits should be fixed, which leave nothing to the will or caprice of the magistrate, which point out to the manufacturer the boundary, within which he may safely exert his industry, and secure to the adjoining proprietors the sure enjoyment of their health, and the produce of their estates. It appears to us indispensably necessary, in order to solve this important question, to take a view of each of those arts, against which the most numerous objections have been urged.

With this view, it may be proper to divide them into two classes. The first will comprehend all those, during the operations of which, gaseous effluvia, the product of putrefaction, or fermentation, that are either unpleasant to the smell, or deemed noxious in their effects, escape into the atmosphere.

The second will include all those where, by the action of fire, various principles are evolved, and diffused in the form of vapour, or gas, of which the inhalation is not only disagreeable, but accounted more or less injurious to health.

In the former, we may rank the steeping of flax and hemp; the manufacture of catgut; slaughter-houses; starch manufactures; tanneries, breweries, &c. In the latter, the distillation of acids, wines, and animal matters; the art of gilding metals; preparations of lead, copper, mercury, &c.

The arts comprehended in the first class deserve particular attention, considered in relation to public health; since the fumes emitted by fermentation, or putrefaction, are, under certain circumstances, confessedly prejudicial to health. The steeping of flax, for example, which is practised in pits, or pools of stagnant water, infects the air, and is fatal to fish. The diseases to which this gives rise are all known and described. It has therefore been wisely ordered, that this operation should be performed without the limits of cities, at a certain distance from all habitations, and in waters containing no fish of importance to the inhabitants.

Other operations, which are practised on vegetables, or certain products of vegetation, with the view of obtaining fermented liquors, as in breweries; to prepare colours, as

in manufactories of turnsol, archil, and indigo; or to free them from some of their principles, as in starch manufactories, paper-mills, &c. do not appear to us, from their nature, to furnish any cause for uneasiness, on the part of the magistrate. At all events, the fumes, arising from such fermenting substances, can only be dangerous in the immediate vicinity of the vessels and apparatus in which they are contained; they cease to be so, the moment they enter into combination with the open air; a little prudence is therefore only necessary in order to avoid danger. Besides, this cannot affect the inhabitants of neighbouring dwellings; it concerns, and can only injure those employed about the works; so that any law ordering the removal of such works to a distance from all habitations, would, on the part of government, be at once oppressive and unjust, in opposition to the progress of the arts, and not calculated to remedy the evil supposed to be produced.

Some preparations, which are extracted from animal bodies, require their previous putrefaction, as in those connected with the making of cat-gut; but more frequently the animal substances employed in different works are suffered to putrefy by remaining too long in the manufacture, or by reason of too high a temperature. This is particularly the case in the dying of red cotton, where much blood is employed. The effluvium exhaled from this corrupted matter is widely diffused, and forms in the neighbourhood a very disagreeable atmosphere. It would therefore be proper to cause the materials to be frequently renewed, in order to prevent their corruption, and to keep the place clean, so that none of the refuse of the animal matters should be suffered to remain till they become putrid.

In this point of view, slaughter-houses are attended with some inconvenience; but this is by no means of so serious a nature as to demand their banishment without the limits of cities, and their being erected in one place, as projectors are daily suggesting to government. A little attention on the part of the magistrate, to prevent butchers throwing out the blood and offal of the animals, is sufficient to obviate any disgusting and unhealthy effects arising from slaughter-houses.

The manufacture of *poudrette* is now fast gaining ground in all the principal cities of France; and the operation by which night soil is reduced to a state of powder, necessarily diffuses a most disagreeable odour. Works of this kind

kind ought therefore to be formed in airy situations, and far from any dwelling; not that we regard the gaseous exhalation from them as injurious to health, but it cannot be denied that it is inconvenient, tainted, disagreeable, and difficult to breathe. On this account, therefore, they ought to be removed to a distance from the habitation of man.

There is one very important observation to be made, respecting the spontaneous decomposition of animal substances, which is, that the exhalations from them appear to be less dangerous, in proportion as the putrefying matters are less humid. In this last case, a considerable quantity of carbonate of ammonia escapes, which imparts its predominant character to the other volatilized matters, and corrects the bad effect of those which would otherwise be deleterious. Thus the decomposition of stercoraceous matter, and of the refuse of the cocons of the silk-worm, in the open air, and in situations the position and inclination of which permit the escape of the liquids, evolve an enormous quantity of carbonate of ammonia, which counteracts the poisonous quality of certain other vapours; whilst these same substances, decomposed in water, or very wet, emit sweetish or nauseous fumes; the breathing of which is attended with extreme danger.

The numerous arts in which the manufacturer produces and diffuses into the air, during the course of his operations, and by the agency of fire, vapours of which the inhalation is more or less disagreeable, constitute the second class which we are to examine. These, which are much more interesting than the former, as well as more intimately connected with the success of national industry, are still more frequently objects of reference to the decision of the magistrate; and, on this account, they appear to us deserving of more particular attention.

We shall begin our examination with the preparation of acids.

The acid, against the manufactory of which neighbours may complain, are, the sulphuric, nitrous, muriatic, and acetic. The sulphuric is obtained by the burning of a combination of sulphur and saltpetre. It is very difficult, in this operation, to prevent a smell of sulphureous acid from being diffused round the apparatus in which the combustion is going forward; but in well contrived works this smell is scarcely perceptible in the manufactory itself; the workmen daily breathe these vapours with impunity, and any complaint on the part of the neighbours

must be unfounded. When the art of making sulphuric acid was first introduced into France, the popular clamour was very great against these establishments: the smell from the matches, used in our houses, contributed not a little to exaggerate the effect supposed necessarily to follow from the rapid combustion of some hundred pounds weight of sulphur; but this opinion is at present so completely overturned, that we observe many of these manufactories quietly flourishing in the midst of our cities.

The distillation of the muriatic and nitrous acids (spirit of salt and aquafortis) is not more dangerous than the making of sulphuric acid. The whole process is carried on in vessels of earthen ware, or glass, and the chief concern of the manufacturer is undoubtedly to diminish the loss, or volatilization, as much as possible. Nevertheless, whatever attention may be given to the process, the air which is breathed in the manufactory is always impregnated with the peculiar smell of each acid; notwithstanding which, respiration in such situations is free and easy, the workmen are not in the least incommoded by it, and any complaint from the neighbours would be unjust.

Since manufactories of white lead, verdegris, and sugar of lead, have become so numerous in France, vinegar is now more generally used than formerly. In distilling this acid, to render it more fit for some of these uses, a very strong smell of vinegar is diffused, which is not dangerous; but when a solution of lead in this acid is evaporated, the vapours assume a sweetish character, and produce, upon those who are in the habit of breathing them, all the effects peculiar to the vapours of lead itself. Happily, these effects are confined to the men who work in the building, and cannot injure those who reside in the neighbourhood.

Preparations of mercury, lead, copper, antimony, and arsenic, the process of gilding metals, are all somewhat dangerous to those who inhabit and assist in the works; but the effects are confined within the enclosure of the manufactories, and are only dangerous to those concerned in them.

It is an object worthy the attention of chemists to investigate the means of preventing these unpleasant effects. Already much inconvenience has been obviated by the help of chimnies, which convey the vapours out of the reach of respiration. At present, all the attention of administration ought to be confined to directing science towards the

the improvements of which these processes are susceptible with regard to health.

The making of Prussian blue, the extraction of carbonate of ammonia by the distillation of animal bodies, in the new sal ammoniac works, produce a great quantity of fœtid vapours. In truth, these exhalations are not dangerous to health; but in these times, to be reckoned a good neighbour, it is not enough to be harmless, we must also not be disagreeable. The projectors of these establishments, when about to fix upon a situation, ought certainly to prefer one at a distance from any dwelling; but when the establishment is already formed, we should be careful of advising the magistrate to order its removal. In this case, it will be sufficient to require of the proprietor, that he shall raise his chimnies to such a height as to dissipate, in the air, the disagreeable vapours produced by his operations. This plan is particularly well calculated for the making of Prussian blue; by putting it in execution, one of ourselves has contributed to preserve, in the centre of Paris, one of the most important manufactures of this kind, against which the neighbours had already combined.

In the present Report, we have thought it our duty to confine ourselves to the chief manufactures, against which violent complaints have been preferred at various times and places; and from what has been said, it must be sufficiently apparent, that the vicinity of a few only is prejudicial to health.

Hence, we cannot too seriously advise the magistrates intrusted with the care of the public health and safety, to dismiss those ill-grounded complaints, too often directed against such establishments, which daily threaten the prosperity of the honest manufacturer, retard the progress of industry, and compromise the fate of the arts themselves. The magistrate should be on his guard against the insinuations of a jealous neighbour; he should carefully distinguish between what is only inconvenient or disagreeable, and what is really noxious and dangerous; he should recollect that the use of pit-coal was abolished for a considerable time, under the frivolous pretext of its being unwholesome; he should, in short, be fully sensible, that, by listening to complaints of this nature, not only the establishment of many useful arts in France might be prevented, but that it might be the means of imperceptibly banishing from cities, farriers, carpenters, joiners, braziers, coopers, founders, weavers, and all those whose profession is disagreeable, or inconvenient to his neighbours. For such

such trades are unquestionably more disagreeable to a neighbourhood than the manufactures above-mentioned, and the only advantage they enjoy over them is their antiquity. Their right to toleration has been established by time and necessity; and doubtless, when those manufactures, of which we have spoken, become older and better known, they will peaceably enjoy the same advantages in society. In the mean time, we are of opinion, the Institute ought to profit by this circumstance, to place them under the special protection of government, and declare that manufactures of acids, sal ammoniac, Prussian blue, sugar of lead, and of starch, as well as slaughter-houses, breweries, and tan-pits, are not prejudicial to the health of the neighbourhood when properly conducted.

We cannot affirm so much respecting the steeping of hemp, cat-gut manufactures, lay-stalls, and all those works where great quantities of animal or vegetable matter are exposed to humid putrefaction; for, besides the disagreeable smell they exhale, vapours are emitted which are known to prove more or less hurtful.

We should add, that, although the manufactures of which we have been speaking, and which we have considered as not injurious to health by their vicinity, should not be removed, yet the administration ought to exercise over them the most active watchfulness, and consult persons capable of pointing out the most proper means, for preventing the diffusion of the smoke or smell throughout the neighbourhood. This end may be attained by improving the processes, by elevating the outer walls, so as to prevent the diffusion of the vapours, by improving the chimnies, which might be so constructed, that the smoke itself should be condensed, or burnt in the fire-place; by keeping the premises extremely clean, so that no putrefaction shall take place; and by conveying off, into deep pits, all the remains susceptible of fermentation, so as not to become in the smallest degree inconvenient to the neighbourhood.

We must once more observe, that when new establishments are about to be formed for making Prussian blue, sal ammoniac, leather, starch, and all those manufactures in general which emit offensive vapours, or which are in frequent danger from fire or explosion, it would be at once wise, just, and prudent, to declare that these establishments cannot be erected within the limits of cities, and near habitations, without special authority being first obtained for that purpose; and that where the founders of them

them do not comply with this indispensible conditon, the removal of such establishments may be ordered without their having a right to demand any indemnity.

The result, then, of our Report is, 1st. That establishments for the making of cat-gut, dung-hills, steeping of hemp, and in general, all those in which a great mass of animal or vegetable matter is heaped up to rot or putrefy, are injurious to health, and ought to be carried on at a distance from cities, and every other habitation. 2dly. That buildings, from which offensive smells are emitted, in consequence of the action of fire, as in the distillation of acids, the making of Prussian blue, and sal ammoniac, prove only dangerous by their vicinity, from want of due precaution; and that the care of administration ought to centre in an enlightened and active superintendence, having for its objects the perfection of the processes employed, the regulation of the fire, and the maintenance of cleanliness. 3dly, That it would become an enlightened and vigilant administration to enact regulations for prohibiting in future, without previous authority, the erection of manufactures in cities, or near to dwelling houses, the vicinity of which is necessarily inconvenient, or dangerous. In this class may be included the manufactures of *poudrette*, tan-pit, starch manufactures, founderies, melting-houses for tallow, slaughter-houses, rag-warehouses, manufactures of Prussian blue, varnish, glue, sal ammoniac, potteries, &c.

Such are the conclusions submitted to the Institute by Guyton and Chaptal; and we are subsequently informed, that they were fully approved of by that learned body, and transmitted to the government, with an invitation to adopt them as the basis of its decision.

To Dr. BATTY.

SIR,

THE following case, with its dissection, appears to me to differ in some points from those generally to be met with either in practice, or as described by authors; if you think it may be of any use to others, and will cause it to be inserted in that very useful publication, the Medical and Physical Journal, you will oblige,

Yours, respectfully,

Duke-street, Manchester-square,
11 July, 1806.

ED. LEESE.

I. B. a hair-dresser, aged 57, for the last fifteen years of his life had been much troubled with pain and difficulty in voiding urine; he generally lived temperately, but in his earlier days had gonorrhœa, which, I understand, had been removed for some time before these complaints became troublesome; but how long I do not know. For the obstruction he had been advised diuretics, bougies, &c. by which he received little if any benefit; it had been suspected there was stone in the bladder, and he was accordingly sounded by the direction, and in the presence of some respectable practitioners; no calculus was discovered. His complaints were not removed, though he remained a long time under their direction. About six or eight months before his death, he was a considerable time under the superintendance of a respectable hospital surgeon, who, I was informed, made frequent use of caustic bougies, &c. without producing any relief; at length he became so ill as to be confined to the house, and about a fortnight before his death he came under my care. I found him very much emaciated in constitution, complaining, that although he had very frequent inclinations, he passed but little urine, and that with great difficulty, and in drops, attended with much pain; he complained also of great uneasiness in each of the lumbar regions, particularly the right; numbness in the course of the ischiatic nerves, and an irregular fever. Several attempts were made to introduce a catheter, and bougies of different sizes, but without success, excepting once, when a very small bougie passed into the bladder; on the points of some of them, when withdrawn, was to be observed an indentation, much as if they had been forced against a septum dividing the natural passage into two; this prevented them from passing more than about 6½ inches. After remaining in this state a few days, and voiding but a small quantity of urine, he died.

Permission being obtained to open the body, it was done, with the assistance of a medical friend, the next day.

On removing the parieties of the abdomen, the liver and intestines were found in a sound state; the omentum reduced to a mere membrane, not containing any fatty substance; in removing the intestines from the right side, a finger ruptured an abscess, the sac of which seemed to be a distention of the peritoneal coat of the right kidney, extending forwards and downwards over the psoas muscle, and contained full a pint of pus, of thick consistence, and

without

without smell. The left kidney was very much reduced in size, its texture very loose and flaccid, and with the ureter formed an immense bag, containing turbid urine to the quantity of 12 oz. as was afterwards ascertained by measuring. The openings from the ureter to the bladder were as large as a goose quill, so that any fluid as readily passed from the bladder to the ureter, as the reverse; this enlargement of the ureter and its opening, no doubt, had been produced by the bladder always containing more or less urine, not being able to empty itself. The bladder was firmly contracted upon the urine it contained, which was about half a pint; the muscular fibres were much thickened in substance, from the great efforts they had made to overcome the obstruction; the inner coat was contracted into rugæ, and of a yellowish green tinge, but not diseased; all the parts posterior to the strictured part, such as the verumontanum, the lacunæ, &c. were enlarged, and had an appearance like leather that had been macerated in a fluid.

The prostate gland was not diseased, though enlarged like other parts near it. On opening the urethra at the strictured part behind the bulb, about 6 ¾ inches from the extremity, we found the natural passage so obstructed as to be almost imperforate, but at the under side was a short artificial one, about a quarter inch in length, which had doubtless been made by attempts to pass bougies, &c. but having been once formed, would render such attempts doubly difficult and uncertain. At this part we found a cellular rather firm substance on the outer side of the membrane, *not surrounding the canal*, but only on the side next the corpora cavernosa, yet compressing and altering its direction, so as to render it nearly impossible for any instrument to pass.

Stricture of the urethra has generally been defined as, "contraction of the transverse fibres of membrane forming that canal." This case was certainly different, and probably presented more difficulties than are usually to be met with, to any attempts that might have been made to relieve it.

To

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

SOME cases having lately occurred in this vicinity, which have been industriously circulated as cases of small-pox subsequent to vaccination, I beg you will oblige me by inserting the following statement of facts in the Medical and Physical Journal for the ensuing month, lest they should, if not contradicted by me, obtain general credit as such.

The first is a case of small-pox eight years and three months after the patient had been variolated.—On the 19th of March, 1798, I variolated a child of Mr. Creswells, Half-way Houses, Portsea, then about three months old. The arm rose and there was constitutional affection, altho' no eruptions appeared. I however (as well as the parents) was perfectly satisfied that the child was secure; if I had had any doubt respecting it, I most certainly would not have received the reward until I had by repeated inoculation placed their child in safety. On the 13th of June last, Mr. Cooper, a respectable practitioner, at the Half-way Houses, Portsea, was so friendly as to inform me, that he had been called to Mr. Creswell's child, who after having a smart fever for three days, was relieved by a plentiful crop of eruptions, which he had no doubt would turn out to be small-pox. He was also kind enough to tell me, that Mrs. Cresswell had spread a story abroad, that I had on the date above-mentioned, (March 19, 1798) *imposed* on her by substituting the vaccine for small-pox inoculation, and that she told this story to every person she conversed with. Mr. Cooper told her, that when her child was inoculated, vaccination had not been introduced into this neighbourhood, but she would not be convinced, On the following day (14th ult.) I called on her to have some conversation, and see her child, who certainly had the small-pox pretty full; in my endeavours to convince her that her child had never had the cow-pox, and that I valued my character too much to abuse the confidence my friends had in me, by substituting one inoculation for another, I had as little success as Mr. Cooper; she said, "You have certainly given cow-pox in lieu of small-pox, or my child could not have small-pox now, and *do not try, for I never will be persuaded of the contrary.*" It was useless to say any thing more on the subject, I therefore took my leave.

REMARK

REMARK ON THE PRECEDING.

It may be seen in my Pamphlet, reviewed in your Journal for October, 1804, No. 69, p. 472, that I commenced vaccine inoculation Dec. 5, 1800; I request your readers to compare this latter date with that on which little Cresswell was variolated, and it will be immediately seen, that I could not possibly (if inclined) have committed the fraud Mrs. C. charges me with, as her child was variolated one year and nine months before I began vaccine inoculation.

The next cases stated to be failures of the vaccine inoculation, are the two Mervins of Queen Street, Portsea.

These cases were stated in a letter to Dr. Jenner, when they occurred, and I will take the liberty of extracting from a copy of the same now before me, so much as relates to them. I trust on the present occasion, Dr. Jenner will pardon me for making public, part of any letter I have had the honour of writing to him.

Mr. Mervin was requested by me in June, 1805, to allow me to vaccinate his three children, neither of whom had passed the small-pox; but he had been so decidedly set against vaccination, by the parents of a child, who it was supposed, had taken small-pox subsequently; and as the book* giving an account of that child's case was given to Mervin to read, it had such an effect on the minds of himself and his wife, that they would not consent, altho' it was to have been done gratuitously.

In January last, Mr. Mervin called at my house late in the evening, and requested me to see his eldest child, Edward, on whom the small-pox had appeared four days. The child had sickened seven days before. On seeing him I found him very full of the confluent kind; and indeed, from the symptoms and general appearance, I had but little hope of his recovery.† The two younger children, William and Eliza, having been so long exposed to the variolous contagion, it was reasonable to suppose they would not escape; I therefore again proposed vaccination to the parents, stating, that I did not expect to prevent the small-pox; but that I thought, if it did not prevent it, the

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* Cases of Small-pox subsequent to Vaccination, published at Portsea, 1804.

† He recovered, is much seamed; it was not till the 21st day, that all the pox had turned.

the complaint might be rendered much milder than Edward's. They consented, and I vaccinated them* immediately with matter received the same day from the Central House, Salisbury Square, having no recent or fluid matter in my possession.

The girl's arm, (one only rose) was very slow in its progress; the vesicle, areola, and subsequent eschar much smaller than I ever saw in a perfect vaccination. On William, I could not succeed in my attempt to give him the Cow-pox; and he was re-vaccinated on the eighth day from his sister, who was also re-vaccinated from her own arm, but without effect. William's second inoculation, proceeded very hastily, and on the fourth day from it, he became restless, and had a slight degree of fever. In two days more, (6th from the latter inoculation) about one hundred eruptions appeared, about eight of which number maturated on his face.

Eliza became dull and heavy on the 9th day from vaccination, and on the 10th, about twenty-four distinct eruptions appeared, none of which maturated.

REMARK ON THE ABOVE.

William had been exposed to variolous contagion, of the most active nature, fifteen days before the second inoculation, and Eliza seven days; being in the same room, the greater part of their time with their brother, and constantly communicating by the attendants on him.

Can this be called, with any regard to truth, a failure of the vaccine inoculation?

Thus do the enemies of the vaccine inoculation, and in these instances, most wickedly, employ every untoward occurrence, whether relative to Cow-pox or not; for, with the help of falsehood, they always make it answer their purpose, to prejudice the minds of the public, particularly the ignorant and weak, against one of the greatest blessings ever bestowed on man; and which it is the blackest ingratitude to the Supreme Being, not to receive with heartfelt and genuine thanks!

Since my last communication, I have vaccinated, (considering the state of vaccination here) a great number; and notwithstanding what Report says to the contrary, I have pleasure in saying, that from the time I commenced vaccination, to the present moment, no failure has occured in my practice. I am, &c.

SAMUEL HILL, Sen.

158, *Queen Street,*
Town of Portsea, Hants.

† William and Eliza.

To the Editors of the Medical and Physical Journal

GENTLEMEN,

THE following case of inveterate scurvy came under my notice; and as I long wished to give a fair trial to the arsenical solution in such cases, I conceived this to be a favourable opportunity; the result is stated exactly as it occurred, and if my feeble efforts can, in any shape, advance medical science, they will be exerted with that view, submitting with all deference to your better judgment such cases as may appear to carry any importance, as new, either in their nature or cure.

The subject of this case, is the cook of a gentleman in this city, a woman about the age of 50. She has been subject to scurvy many years, which commenced in the palms of her hands, and gradually extended over her hands and arms, and partially in other parts of the body; but the hands and arms appear to be primarily and most materially affected, so much so, as to stiffen and partially contract the joints of the fingers and elbows.

Her mind dwelt so much on the disagreeable nature of the disease, as to occasion her general health to decline; her habit of body was costive, with loss of appetite; symptomatic fever, characterised by a small quick pulse, constant thirst, white tongue, and frequent inclination to vomit. She had tried many regular professional men in this city and elsewhere, as also the use of our baths, and many of the nostrums advertised for the cure of such complaints, but in vain. The disease evidently appeared to gain ground, by rendering her less capable of using her hands and arms. In this deplorable state, she applied to me on the 6th of January last. In the first place I deemed it prudent to detach her mind from so forcibly dwelling on her disease, or rather despairing of relief: after which I diminished the prevailing symptoms of fever, by first ordering an emetic, and afterwards a brisk aperient, as the chylopoetic viscera appeared deranged. The emetic and aperients had the effect of restoring the stomach and bowels to a healthy state; small doses of antimonial powder, joined with nitre, were continued till her health was materially mended.

On the 24th of January I ordered her the mineral solution, beginning with gtt. vj. bis die, in decoctum ulmi,

increasing one drop per diem, provided nausea was not caused.

This plan was strictly adhered to, and at the end of a week I saw her, and found that the disease evidently was yielding, and the general health mending, an increase of appetite, and undisturbed sleep. She continued the solution for a month, and had increased the dose to gtt. xxx. bis die; at the end of which time I saw her comparatively well; the blotches in her hands, and different parts of the body, were not only gone, but the flexibility of the joints perfectly restored. Animated by the hope that she should obtain a perfect cure, she was anxious for more of the drops; a continuance was ordered, but not an increase, because I found that her health was perfectly re-established, and the disease nearly eradicated, therefore I judged it prudent not to push the remedy farther.

She continued taking 30 drops till the 14th of May, when she expressed herself deeply indebted to me for her cure, and for the enjoyment of health, which she had not experienced for upwards of 30 years; and I am happy to say, that the skin, even of the parts most severely affected, does not bear a trace of any disease, and that she is perfectly restored to health.

I have frequently given it in tertian intermittents with success, and in cases of scurvy; but of its specific qualities in this kind of eruption I never before was so well satisfied.

The antiscorbutic properties of this mineral claims the attention of medical men, in order to discover its further effects in the cure of such diseases.

It appears to me, that the attention should be first directed to the state of the general health, before the administration of the solution, otherwise, the indiscriminate use without judgment, might not only not answer the intended end, but prove dangerous to life itself.

I am, &c.

13, *Walcot Parade, Bath,*
June 8, 1806. G. F. EDWARDS, Surgeon.

P.S. I am happy, in common with some others of your correspondents, in bearing testimony to the superior advantages of nitre over other remedies, in the cure of sphacelus, as stated by the ingenious Dr. Cuming. It is most certain, that no other known remedy is so effectual as this, in arresting putrid diathesis, and correcting fætor frm wounds.

To

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I Will neither amuse nor tire your readers by a reiteration of complimentary language. I shall however, just remark, that it is extremely pleasant, in controversial matters, where there ought to be as little personality as possible, to see men write temperately, and address each other in the language, and with the consideration of Gentlemen. It certainly has great influence in forwarding the cause of truth, and induces many to enter the lists, who, though not very deficient in talent, or in the power of communicating information, might otherwise be deterred by the want of courage.

Analogy, though a very useful, is not always a safe guide in our reasoning. Dr. Reid has well remarked, that "Arguments from analogy are always at hand, and grow up spontaneously in a fruitful imagination; while arguments that are more direct, and more conclusive, often require painful attention and application: and therefore, mankind in general have been very much disposed to trust to the former."* I do not think that much is to be gained by pursuing a *false* analogy: I consider Dr. Kinglake's to be such; and as his authority may give it some influence, it may be useful to prove its fallacy. In speaking of what, he is pleased to say, I have "unconsciously conceded," he has not made any distinction between *the powers of the mind,* and the *vital principle;* and the want of this distinction seems to be the foundation of *his* error. That "no theory of animated nature can dispense with this sort of connection" is true, as far as it relates to *matter and life;* but that it is so with respect to "matter and mind," I must have liberty to deny, unless Dr. K. speaks of the divine mind. For, notwithstanding the poetical fiction of the "Loves of the plants," Dr. K. will hardly admit of the *mental* energy of the vegetable kingdom, though it possess life and an organization, subject to the influence of external agents; for my own part, I should as soon believe in "the Loves of the Triangles." The act of locomotion, arising from the influence of volition upon the locomotive powers, is surely very different from

 involuntary

* Inquiry into the human mind.

involuntary organic action; the latter being excited by mechanical or chemical stimulus upon the vital principle, the former by motive operating on the mind.

But to return to the analogy itself. Suppose Dr. K. spurring his horse, and the reluctant animal, by this stimulus to his voluntary efforts, proceeding at the rate of twenty miles per hour; so long as the spur is used with sufficient vigour, and the powers of the animal are unexhausted, he may proceed at the same rate; if he be spurred *less* severely, he will slacken his pace; but if the severe spurring be suddenly discontinued, he will be very likely as suddenly to alter his pace from a gallop of twenty miles per hour, to a trot of six or seven; and in that case Dr. K. must have a strong seat or be thrown out of his saddle, or, perhaps, precipitated over his horse's head; a situation in which I should be very sorry to see him.

This subject might be pursued a great deal further, and the arguments of the gravest metaphysicians might be employed in its support; but they would probably be as useless as numberless volumes on metaphysics were before the introduction of the principles of inductive philosophy. My object is to shew the necessity of caution in the use of analogy, and the danger of *false* analogy.

Dr. K. and I differ most essentially in our opinions of the "exciting cause" of inflammation in burns, which he states to be "Spirit of Turpentine" but which I take to be fire.

Dr. K. observes, that "the influence of excessive cold, on the living animal fibre, reduces the active powers of life to a state bordering on death; such a state of vital power is too feeble to admit of *violent excitement*, without risking a mortal exhaustion of its sinking remains." But violent excitement is here a relative term, for the ordinary exciting powers would in this state produce violent excitement, and therefore exciting powers far below the ordinary standard are proper. On the contrary, after the influence of fire, or excessive heat, "on the living animal fibre," the terebinthinate remedy, though *above* the ordinary exciting powers, does not augment, but diminishes the excitement, and occasions no pain. But the application of any very low degree of heat, (if the injury be such as to render the reproduction of parts necessary) will occasion such a degree of indirect debility in the producing parts, as almost to disqualify them for that office; and, when they do act, their action is extremely irregular, affording an organization extremely weak, or so exuberant

as,

as to be restrained with difficulty, and ultimately occasioning a very disfiguring cicatrization.—In favour of the terebinthinate remedy, it is to be observed, that its use is less troublesome to all parties, and not likely to cause either catarrh or rheumatism; consequences of the cold applications, on some occasions, too serious to be disregarded.

Dr. K. afterwards says, "that *whatever* may have occasioned a departure from the standard of health, whether such departure should consist in an *excessive* or *deficient* action of vital power, a *prompt* restoration of that standard is the eligible mode of cure." Forgetting probably what he had said in the preceding page, that "a *slow* augmentation of exciting power in such circumstances (the effects of excessive cold) is most safe, and best adapted to restore and establish the energies of life." This is all the concession that *I* wanted.

The distinction is surely *not* without a difference between the application of fire, only for a sufficient time to produce inflammation, and its *continued* application; between the inflammation arising from an irritating matter *withdrawn*, and the inflammation arising from irritating matter *still in contact* with the inflamed part.

Having thus, Gentlemen, explained myself, as far as to me appears necessary, I shall leave the subject in abler hands, at least till farther experience either confirms, or makes me change my present opinion. I have no doubt of the facts advanced by Dr. K. I am confident in my own,—it is therefore at *least* a matter of very curious inquiry. In common with most men, I naturally like to feel that I am right, but I am not anxious to support any opinion that time and farther experience may not warrant, and shall always be happy to meet with the liberal and gentlemanly criticism that I have encountered on the present occasion.

I am, &c.

E. HARROLD.

Cheshunt, Herts. July 3, 1806.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

EVERY liberal mind must feel greatly indebted to those intelligent practitioners, who, through the medium of your valuable Journal, present to public notice any novel and

interesting discovery in the healing art; actuated, as they must be, by a laudable zeal for the alleviation of human misery, and anxious to contribute their mite to that philanthropic end. Such, I am well aware, is the intention of your correspondent, Mr. Weaver, in his case of apoplexia hydrocephalica (No. 86). I cannot, however, conform to his principles; and as temperate discussion is the nurse of improvement, I trust the following remarks will be attributed to a similar motive.

To the observations preliminary to the case, I cannot but assent; not so, however, to the treatment of it; nor, can I agree with him in the position, "that if hydrocephalus is in general undertaken previous to the second stage, it will not, in a majority of instances, resist the usual mode of treatment;" although, I think, by due attention and acumen in the practitioner, in ascertaining the disease at his first attendance, and by active means *then* zealously employed, it may very often be arrested in its progress; but, if that is to be the case, if its gigantic strides are to be impeded, it must be accomplished by different and more active means than those employed by Mr. W.

At his first visit, when there appeared convulsions, was there no flushed face, no contracted pupil, and fever? And was not the nausea and vomiting indicative of the irritability of the common sensorium? If so, why an emetic; which, by propelling more blood to the head, by adding fuel to the fire, must evidently have increased the disease:—bleeding, general and topical, the cold affusion to the head, brisk saline purges, and an active antiphlogistic plan, I should have thought more likely to have resolved the disease, if the resolution of it was possible.

On the second visit, the languid and inactive state of the child, the heavy and burthensome appearance of the head, the dilated pupils, and the frequent startings and screamings, certainly indicated pressure upon the brain, and that the secondary disease was formed; and then the case was one of those fortunate few, where the absorbent powers, being either the effort of nature, or roused by art, are equivalent to a removal of the exciting cause.

Mr. W. however, observes, "that by a happy combination of two powerful agents, digitalis and calomel, much good was done; and which, he is persuaded, neither of them, *per se*, could have effected.

I must confess myself surprised at reading, that on the fifth day of the exhibition of the digitalis (the tenth of the

the disease) eight grains were given to a child, three years old, and combined with 16 grains of calomel;—but much more so was I at finding, that the next day (the 11th), the child was improving both in *health and strength!* As I could not reconcile the above with my own experience in the sedative and debilitating effects of that powerful drug; and which I have in no instance whatever been able to exhibit, to any thing like the extent mentioned by Mr. W. I think it very desirable to ascertain, whether it was genuine and possessed of its wonted powers; as, if it was not so, but inert, the precedent, from a similar quantity being given in a similar case, may prove unfortunate indeed!—Should you favour this letter with an insertion, it will, I trust, meet Mr. W's eye; who, I am very sure, will explain the point, if he finds any explanation necessary.

I am, &c.

C. S.

Observations on a recent Publication on the Structure of the Parts concerned in Crural Hernia, by Mr. Allan Burns, Lecturer on Anatomy and Surgery at Glasgow.

THE attention of Surgeons has been in a particular manner directed to this subject, since the publication of Mr. Hey's Practical Observations in Surgery, in which that valuable writer brings into notice the accurate Essay of Don Antonio de Gimbernat. Every description, however, of the Anatomy of the Groin, which has of late years appeared in the writings of Surgeons, although no doubt calculated to extend, in some degree, our acquaintance with the structure of this part, have, in our opinion, been more or less imperfect. We were hopeful, therefore, that Mr. Burns, in his publication, would have supplied any deficiencies connected with this subject, and described such peculiarities as have remained unnoticed by other Anatomists. In these expectations, however, we have been extremely disappointed; there is nothing in Mr. Burn's Essay which is in the least interesting; nothing which can with any propriety be considered as new or original. We willingly allow him the merit of having described with great minuteness, that reflexion of Poupart's ligament which lines the anterior surface of the iliacus internus and psoas muscles, as well that which is

expanded over the posterior surface of the transversalis abdominis; but at the same time we must be permitted to observe, that the description of the former by Gimbernat, and of the latter by Mr. Cooper, is fully as accurate, and much more intelligible. We are rather inclined to suspect, that Mr. Cooper's work on Hernia has not yet fallen into the author's hands: if so, we beg leave to recommend that gentleman's book to Mr. Burn's early perusal. But if our suspicions are groundless, we do not hesitate to say, that Mr. Cooper's name ought not, in this communication, to have been passed over in such total silence. We could have wished that Mr. Burns had directed less of his attention to the internal reflexions from Poupart's ligament, and dissected with greater accuracy those external parts which are of more immediate importance in the operation for crural hernia. His description of the fascia lata of the thigh is, we apprehend, much more calculated to perplex than to instruct. According to him, this fascia consists of two layers, the outer of which is thin and cellular, the inner one firmer, thicker, and more membranous. Now this outer, thin, and cellular layer, appears to us to be neither more nor less than the loose fascia in which the inguinal glands are usually embedded, and which was first accurately described and delineated by Camper. The inner and firmer layer is the fascia lata of the thigh, properly so called, and the curved, the lunated, the crescentic margin of this fascia, the falciform process so minutely described by Mr. Burns, is exactly the femoral ligament of Mr. Hey. Here, indeed, the correspondence of description is so striking, that we were sorry to find no candid acknowledgement on the part of Mr. Burns, of the many and evident obligations which he lies under to pages 151, 152, 153, &c. of Mr. Hey's Practical Observations.

That the femoral ligament described by Mr. Hey does actually exist, we are fully convinced from repeated dissections. "It may be easily discovered, by introducing the finger (after the abdomen has been laid open) into the aponeurotic sheath of the great femoral vessels, behind Poupart's ligament. As the finger passes downwards it will be pressed upon by a part of the fascia, more compact than the rest, which runs transversely about three-eights of an inch below Poupart's ligament, and sometimes presents a sharp edge to the finger. It is not situated in the same plane with the ligament of Poupart, but lies

lies deeper, that is, at a greater distance from the integuments." (Practical Observations, p. 152, 154.)

So far this is certainly correct; but we apprehend that Mr. Hey has fallen into an error, when he says, (p. 153) that "this femoral ligament is formed in the fascia of the thigh, or the anterior layer of the aponeurotic sheath of the great femoral vessels." He does not seem to be aware that the anterior layer of the sheath of the vessels is formed by a distinct reflexion downwards f om Poupart's ligament, and not by the fascia lata of the thigh, between which and the reflexion we have mentioned, there is in most subjects a distinct layer of fat and cellular substance. It is the curved margin of this reflexion which is felt in the situation pointed out by Mr. Hey, pressing upon the finger when introduced from the abdomen into the crural ring; and we believe that, upon careful examination, it will be found to be this same reflexion, and not the falciform process of the fascia lata, as Mr. Burns asserts, which is continued into the ligament of Gimbernat. By dividing, therefore, a few of the fibres at the margin of this reflexion, a stricture existing in the crural ring would be as effectually removed as by Gimbernat's operation.

That Mr. Burns may be fully satisfied of the justice of our remarks, we have only to request that he will repeat with care his dissections of the groin. On cutting through the skin and cellular membrane, Mr. Burns will find, that the first part which presents itself is the loose fascia of Camper. This being removed, the fascia lata of the thigh is brought into view. Let now the fascia lata be carefully lifted up, and another facia will be discovered, a reflexion sent off from the middle and internal edge of Poupart's ligament, which running downwards over the femoral artery and vein, constitutes the anterior sheath of the femoral vessels. Between this fascia and the fascia lata there is in most subjects a layer of fat, nearly a quarter of an inch in thickness. In some cases there is only a thin layer of cellular substance interposed, but in every instance the fascia are sufficiently distinct to admit of separate demonstration.

In our dissections of these parts, we have uniformly followed the very accurate description of them, which we have found in Notes from the Lectures of Mr. Thomson, Professor of Surgery in Edinburgh.

July, 5 1806.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN the last Number of your Journal, Dr. Kinglake expresses his opinion, that the inquirers into the source of the cow-pock, have ascribed this disease to the equine fluid, or the matter of grease, in too unqualified terms; and thinks they are too positive in insisting on this point. While he entertains this opinion, it is no wonder he considers me as peculiarly deserving of his animadversion. He thinks I have been more successful in my endeavours to prove the superiority of vaccine inoculation, than in my endeavours to prove, that vaccine and equine matter are of the same nature, and originate from the same source.

He tells us, that in his view of the possible hazard, of trying what might be the event of inserting the acrid and fetid matter of grease, it would not be warrantable for him to extend the experiment to the human subject. This sentiment is highly honourable to his judgment; particularly as the different experiments which he made on the teats of the heifer seemed to indicate, that there is no very extraordinary danger to be thence apprehended.

He asserts that I have not only adduced some authorities for the practice, which I admit; but that I have also represented it to be "*indisputably safe and efficacious*;" which I cannot admit, till Dr. Kinglake, or some other gentleman, will point out the passage in my publications, in which I have been so unguarded.

Supposing, however, that I maintain both these positions, he asks how it comes to pass, that not a single experiment of this kind has been made in our own country? This question, at the same time that it is a natural one for *Dr. Kinglake* to ask, is a proof how little this point has been the object of his attention; and an additional instance to the many others, in your Journal, and elsewhere, in confirmation of what was long ago remarked by Dr. Jenner, that "it is surprising how many authors write on the subject of vaccination, and how few understand it."

Dr. Kinglake asks how it comes to pass, that not a single experiment of the kind has been made in this country,

try, notwithstanding it is the very country, where the idea of this supposed identity of the two fluids originated. Here it is obvious that he is totally ignorant of the great number of experiments of the kind made by Dr. Woodville, Mr. Coleman, Mr. Simmons of Manchester, and others, without success; and by Dr. Loy, Mr. Loy, and Mr. Tanner, with success. Dr. Loy, in particular, succeeded repeatedly; and once in a manner which leaves no room for scepticism itself any longer to find an excuse. He borrowed of a gentleman a clean lancet, and in his presence successfully inoculated one of that gentleman's own cows with virus taken from the heel of one of his own horses. In short, no one who reads Dr. Loy's publication, can harbour the least doubt of the identity of the two fluids, without questioning his veracity also; which has never yet been questioned. The same may be said of Mr. Loy and Mr. Tanner, as well as of the foreign Physicians, Dr. Sacco and Dr. La Font. Dr. Sacco having himself been an opponent of this doctrine, was not likely to have been converted to it by any thing short of ocular demonstration; and his evidence, as well as that of Dr. Loy, is the more satisfactory, because it is the result of experiments made before witnesses.

When Dr. Kinglake opposes the result of his own experiments, which were unsuccessful, to that of the experiments of others which was successful, it is necessary to remind him of the observation of a right reverend prelate, in a case of crim. con.; that positive evidence is much stronger than negative. Four servants having been stationed on a landing place, in order to ascertain whether a gentleman went to a lady's apartments, two of them swore they saw him go into it; and the other two swore they did not see it. There is no difficulty in discovering a probable reason, when we recollect, that the two latter might have been asleep at the time. Besides, we all know, that whether the object of inquiry is gallantry or grease, none are so blind as those who *will not see*.

Dr. Kinglake thinks it probable, that others, as well as himself, may have been deterred from making experiments on the human subject, from an apprehension of the ill consequences that might ensue; but this, as he very justly observes, need not have prevented them from making such experiments on the brute animal. Accordingly we find, by the different instances before-mentioned, and others which might easily be adduced, that it has not prevented them. Dr. Kinglake, however, as if he had never heard or read

read one syllable of a subject, which has been so hackneyed for years, and is now become so threadbare, once more betrays his total ignorance of it, by gravely and seriously asking, whether the fact has ever been put to the test of experiment? and with what result?

It would, indeed, in this age of experiment, have been a wonder, if such an important fact had continued, till this time, a subject of conjecture; and not been submitted to the test of examination. To what cause the failure of Dr. Kinglake's experiments is to be ascribed, it is not easy to determine, unless the opinion of some of our countrymen, and of Dr. La Font of Salonica, be well founded, that the heel of the horse is subject to more sorts of grease than one.

In order to strengthen his argument, Dr. Kinglake informs us, that neither the farrier who procured the equine virus for him, nor the carter who assisted him in inserting it, had ever experienced any ill effect from such virus; and that they were therefore inclined to consider it harmless. Such an argument is excusable in the mouth of a farrier, or in that of a carter; but not in that of Dr. Kinglake. Thousands may say the same of the itch, the venereal disease, the small-pox, and the plague. These disorders might therefore be considered as not infectious, did not positive and incontrovertible evidence of the contrary too often occur.

Dr. Kinglake admits, that his experiments on this subject may not have been sufficiently numerous to be decisive; which the observations I have already offered, and others that I shall hereafter offer, prove they are not. He thinks, however, they are sufficient to shake my positive assertion, respecting the identity of the two matters in question; and, indeed, they would shake it, were it, as he considers it to be, gratuitous; and were it not supported by positive evidence, and incontestable facts.

Dr. Kinglake is of opinion, that if my notion of the origin of this disease be well founded, it is injudicious to take matter for inoculating the human subject from the cow, lest its native qualities should be impaired by this transmission; and that we ought to have recourse to the fountain head. But, till he can point out an easier method of discovering this fountain head, or rather fountain heel, than he has hitherto done, he may as well tell the inhabitants of Egypt, that it is injudicious in them to quench their thirst, till they have traced their water to its fountain head, and discovered the source of the Nile.

When Dr. Kinglake can consider my assertion on the subject

subject as merely gratuitous, although it was sanctioned by several decisive experiments, noticed by himself, it is no wonder he should consider his own experiments conclusive, although not one of them was, or could be, decisive. A negative is not quite so easily proved.

I agree with him, that the discovery of truth is worthy of the best efforts of philosophy; and that neither prejudice, nor intemperate zeal, should interfere with a dispassionate endeavour, to solve the question at issue. But if Dr. Kinglake is determined to consider the two diseases, excited by vaccine and equine matter as radically distinct, till I have ascertained the contrary by my own experiments, it will probably be long before he becomes a convert. At the same time I beg leave to remark, that I should not altogether despair, were I not convinced of the difficulty of discovering the genuine virus in the *horse*, and that such experiments would interfere too much with other duties which I deem still more important.

I shall here recapitulate some of the various instances, in which the cow-pock, or a disease of the same species, appeared to derive its origin from the horse. Dr. Jenner informs us, in his Inquiry, p. 9, that in the year 1770, John Merret, an under gardener to the Earl of Berkeley, lived as a servant with a farmer in the neighbourhood of Berkeley; and occasionally assisted in milking his master's cows. During this period, some horses belonging to the farm, began to have sore heels, which Merret attended; soon after which, the cow-pox appeared on the cows, and several sores on his hands. This man has frequently been put to the test of variolous inoculation, as well as exposure to the natural infection; but to no purpose. It is therefore concluded, that the disease he had was the cow-pock; or the equine disease of the same nature with the cow-pock.

In p. 22, of the same work, Dr. Jenner relates another case of this kind. In 1782, Simon Nichols, servant of Mr. Bromedge, having been employed in a similar way, the disorder was communicated by him also to his master's cows; and having quitted Mr. Bromedge's service without any sores on him, and gone to another farm, the disorder soon afterwards appeared on his hands; and was there likewise communicated to the cows.

In p. 25, Dr. Jenner relates the case of Thomas Pearce, the son of a smith and farrier, who had a similar disorder, when a lad, from dressing the heels of a horse; and has since proved insusceptible of the infection of the small-

small-pox, both in inoculation and the natural way. In a note, at the bottom of the next page, he says, "It is a remarkable fact, and well known to many, that we are frequently foiled in our endeavours to communicate the small-pox by inoculation to blacksmiths, who in the country are farriers. They often, as in the above instance, either resist the contagion entirely; or have the disease anomalously. Shall we not be able to account for this now, on a rational principle?"

In p. 26, he relates the case of Mr. James Cole, of Berkeley, who also had this disease from the heels of a horse. When inoculated for the small-pox, a few eruptions appeared on his forehead; but soon disappeared, without maturation.

In p. 27, he relates the case of Mr. Riddiford, of Stone, in the parish of Berkeley, who also had a severe local and constitutional affection from dressing the heels of a horse. In this case, it is true, it may be questioned whether infection was received while the virus in the horse retained its prophylactic power; but either this case, or the former, is sufficient to shew, that equine matter is not inert, as Dr. Kinglake endeavours to prove.

In p. 28, he relates a case of a dairy maid who had the cow-pox; and, in p. 32, informs us, that from this time his researches were interrupted till the spring of the year 1798, when, from the wetness of the early part of the season, many of the horses of the farmers in the neighbourhood were affected with sore heels; in consequence of which the cow-pox broke out in several dairies, which afforded him an opportunity of making further observations on that curious disease. A horse belonging to a person who keeps a dairy, in a neighbouring parish, had sore heels; in consequence of which three men received infection. Two of them, who had the small-pox before, described the constitutional symptoms they felt as similar to those of that disorder; and one of them being employed in milking, the cows also shewed signs of being infected with the genuine cow-pock, in about the space of ten days after he had dressed the heels of the horse.

In p. 33, we are informed, that John Baker was inoculated with matter taken from a pustule on the hand of another of these men, who were thus infected by means of equine matter; and a pustule was thereby excited. This pustule was not exactly similar to those which had been excited by matter from the cow, or the human subject; but it nevertheless furnished another proof that equine

quine matter is far from being inert. It is the subject of the second plate contained in Dr. Jenner's Inquiry; which is generally, but erroneously, supposed to represent a case of the cow-pock. Whether it would have afforded a security against the infection of the small-pox, Dr. Jenner was prevented from deciding, the boy having, soon after, felt the effects of a contagious fever in a workhouse.

In p. 44, Dr. Jenner tells us, that he entertains no doubt of the cow-pox originating from the grease; being well convinced, that it never appears among cows, but when they have been milked by some person who has the care of a horse labouring under this disease; unless it has been introduced into the farm, either by a cow, or a servant, already infected.

In page 45, he says, the activity of equine virus is increased by transmission through the cow. This opinion is since proved to be erroneous; but it was the result of such cases as had at that time come under Dr. Jenner's observation. His next remark, however, is consistent with his usual accuracy; for he tells us, the virus in the horse is most active at the commencement of the disease, before it has acquired the consistence of pus; and says, he is not confident whether its infectious quality does not entirely cease, as soon as it is secreted in this form.

He remarks, that it is very easy to procure pus from old sores on the heels of horses; and says, he has *often* inserted such into scratches, made with a lancet, on the nipples of cows, without producing any other effect than simple inflammation. This shews, that the opinion entertained by Dr. Jenner and others, has *not* been entertained without a solitary experiment being made. The experiments made by him, it is true, did not confirm the opinion; but it has been fully confirmed by the experiments of others, since made. He seems, however, to have been perfectly right in his conjecture, that it is the thin fluid, of a darkish colour, oozing from the recent cracks in the heels of a horse, which communicates the disease in question.

In p. 62, he relates a case, which renders it probable, that not only the heels of the horse, but also other parts of the animal, are capable of generating the virus which produces the cow-pox. An extensive inflammation, of the erysipelatous kind, took place, on the upper part of the thigh of a colt belonging to Mr. Millet of Rockhampton. This inflammation was followed by sores; which were dressed by the same persons who were employed

ployed in milking. Soon after, all the cows and milkers in the dairy were affected with a disease, which appeared to be the genuine cow-pox.

In the second part of his Inquiry, p. 78, he alludes to that species of cow-pox which proceeds from simple inflammation; and, without pretending positively to decide, whether the matter thus produced in the cow possesses any specific property, like the former, he tells us, that his inquiries have not led him to adopt the supposition of its possessing such a specific property in any one instance.

In p. 90, he adduces some further reasons for the opinion he has adopted, that the cow-pox originates from the horse; an opinion which is general among the farmers in that part of the country. It is, indeed, the popular opinion, and particularly insisted upon by those who attend diseased cattle. He had frequently observed, that morbid matter, generated by the horse, casually communicated to the human subject, a disease so nearly resembling the cow-pox, that in many cases it was difficult to distinguish one from the other. He particularly confirms this idea by an extract of a letter from the Rev. Mr. Moore, of Chalford Hill, whose horse had the grease; which was soon followed by the cow-pox in the cow, and a similar disease in the servant.

In page 95, he observes, that from the similarity of local and constitutional symptoms, between the disease received from the cow and that received from the horse, the common people in his neighbourhood, through a strange perversion of terms, when infected by the horse, *frequently* call that disease the cow-pox. This shews, that it is a disorder of *frequent occurrence*; instead of being one that never occurs, as Dr. Kinglake supposes.

One instance which Dr. Jenner gives of this affection, was communicated to him by Mr. Fewster, of Thornbury, the celebrated inoculator for the small-pox, who is extremely well acquainted with the various appearances of the cow-pox, both in the brute animal and the human subject.

William Morris, of Almonsbury, applied to Mr. Fewster in April, 1798, informing him, that four days before he perceived a stiffness and swelling in both his hands; which were so painful, that it was with difficulty he continued his work. He had also been seized with a pain of the head, back, and limbs; and frequent chilly fits, succeeded by fever.

On

On examination, Mr. Fewster found him still affected with these symptoms, together with a great prostration of strength. His hands were chapped; and on the thumb of the right, there was a sore as large as a pea, and another on one of his fingers, which discharged an ichor. They were of a circular form; and he told Mr. Fewster, that at their first appearance, they resembled blisters occasioned by a burn. He complained of a very violent pain, extending up the arm to the axilla.

This disease was so similar to the cow-pox, that Mr. Fewster concluded it to have arisen from milking those animals; but the man assured him that he had not milked a cow for more than half a year; and that his master's cows had nothing the matter with them. Mr. Fewster then asked him, whether his master had any horse affected with the grease? to which he answered in the affirmative; adding, that he had constantly dressed him twice a day, for the last three weeks or more; and the smell of his hands was much like that of the horse's heels.

Three days afterwards, Mr. Fewster saw him again, and found him still complaining of pain, attended with the same febrile symptoms as before. The sores had now increased to the size of a seven-shilling piece; and there was one which Mr. Fewster had not observed before, on the fore-finger of the left hand, as painful as those on the right. By proper applications they were healed in something more than a fortnight; but he lost all the nails of the thumb and fingers, which had been affected with this disease.

In the Medical Review for June, 1800, I published an account of Mr. Tanner, of Rockhampton, having successfully inoculated a cow with equine matter. Some doubt was entertained concerning the regularity of this experiment; but I am informed by the most respectable authority, that he has since again succeeded, in an experiment, concerning which there can be no doubt.

At the same time I published a case communicated to me by Dr. Marshall, previously to his going to the Mediterranean; which was as follows. Being consulted about the dairy-maid of a farmer in his neighbourhood, he perceived some pustules on the back of her hand. On inquiry he found, that the cow-pox was in the farm; and that the farmer's son, one morning, after dressing the heels of the horse, had milked the cow, because she was too unmanageable for the maid to milk her.

In the same paper I alluded to the evidence on this

subject, lately received from Sir Christopher Pegge of Oxford and Mr. Rankin of Eastbourne. The former was published in the Medical Review for November, the same year, in a letter to Dr. Jenner, and states, that he had derived his information from Mr. Lupton, a surgeon of Thame. Mr. Lupton's attention was first drawn to the subject in March 1800; when the son of Mr. Way, a farmer at Ichford, applied to him on account of a complaint in his hand, greatly resembling the cow-pox, both with regard to its local and constitutional symptoms. This complaint could not be accounted for from any other cause, than his washing the heels of a horse; as he had not milked a cow. Mr. Lupton was of opinion, that this disease was of the same nature with the cow-pox; and, after repeated inquiries, was convinced, that it is not the common grease in horses, which produces such effects in the cow, or the human subject.

On the 30th of the same month, Mr. Lupton had another patient, affected in the same manner, and from the same cause; Richard Hunt, a servant of Mr. Randolph, of Thame-Park Farm. His first symptoms were a stiffness and uneasiness of the arm, and a swelling of the axillary glands; succeeded by pustules on the hand, and a very painful one in the middle finger, of the blue appearance described by Dr. Jenner, as characteristic of the genuine disease.

These symptoms were attended with frequent rigors, heat, anxiety, giddiness, pain in the head and back, sickness and vomiting. He had a very bad night, and was rather delirious. The other arm also became stiff and painful. The next day red streaks appeared along the whole course of the lymphatics. On the 6th of April, the pustules on the hand had a dark-coloured depression in the centre, surrounded with an elevated margin of matter. As a proof that this man's complaint did not proceed from vaccine matter, he had not milked a cow for more than six months.

On the 9th of April, John Watson, another servant of Mr. Randolph, applied to Mr. Lupton, on account of a similar complaint. His particular employment was that of milking; but he had also assisted his fellow-servant in dressing the heels of the horse. The disorder shewed itself in the cows more than a week before it appeared on his hands; it is therefore doubtful whether he received the infection directly from the horse, or indirectly, from the cow.

cow. But, after the most minute investigation, Mr. Lupton is fully persuaded that it originated in the horse.

On the 18th of May, Sir C. Pegge was at Thame, and Mr. Lupton informed him, that Leonard Paling, a third servant of Mr. Randolph, was affected in the same manner as the two former. This man caught the disorder from the cows; never having assisted in dressing the horse.

Sir C. Pegge examined the case; and found the symptoms exactly correspond with those of the other persons, whose cases are already described. One of the axillary glands was still enlarged, and very tender; and his whole system had been much disordered, in consequence of the ulceration of his hand.

"Thus, says Sir Christopher Pegge, we have seen a complete series of facts, relative to the progress of this very important disease, as affecting the human frame; establishing its origin, in a disorder of the horse's heels, by farrier's termed a scratchy heel, and considered as widely different from common grease. The first servant was infected from the horse; the second conveyed the infection from the horse to the cows; and the third received it solely from the cows.

"From the last servant Mr. Lupton inoculated several children; some of whom I saw on the eighth day after inoculation, with the most decided appearance of the true cow-pox upon them. This appearance I could not mistake, after having witnessed so many instances of it at our friend's, Mr. Fermor, of Tusmore; whose benevolent and disinterested exertions have contributed so largely to the stock of facts, in support of a discovery, which, if the powerful argument of induction may be allowed, bids fair to be of the greatest benefit to mankind.

"One circumstance was remarkable in all the three persons above mentioned, namely, that they were affected with swellings in the axilla, and other symptoms denoting constitutional disease, before they had any ulceration or pain in their hands. Watson repeatedly assured me, that although both his hands were ulcerated, a swelling first appeared in the axilla of the left arm, followed by sickness, head-ach, &c. after which the ulceration commenced in the palm of the right hand, between the fore-finger and thumb."

Other avocations at present put it out of my power to add more on this subject; but it is my intention to resume it again. I cannot, however, omit this favourable opportunity of paying a sincere tribute of respect to the memory

of that friend of humanity, of science, and of truth, Mr. Fermor, whose early and zealous exertions in vaccination I have elsewhere recorded. His general character is too well known, to require any encomium from my pen:

His saltem accumulem donis, et fungar inani
Munere. I am, &c.

15 *July*, 1806. JOHN RING.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

PERMIT me to present you with the first half-yearly Report of the Nottingham Vaccine Institution; to which I have subjoined a few observations.

I am, &c.

JAMES CLARKE,
Physician to the Institution.

Nottingham, July 9, 1806.

Report of the Institution established at Nottingham, in November, 1805, *with the view of exterminating the contagion of small-pox, by promoting a general vaccine inoculation, and more particularly by offering the advantages of that valuable discovery without expence, to such of the poorer orders of the community as were disposed to accept them.*

THE directors of this Institution have now arrived at the most agreeable part of their labours, that of reporting to the public their proceedings and success in the trust committed to them.

They have considered the duty imposed upon them as twofold.

1st, That of making an offer of the benefits of this practice to the poor, in such manner as would put them to the least inconvenience, and seemed the most likely to secure their acceptance of it, by removing those prejudices which must for a time obtain against a discovery, however valuable, that is yet new.

2d, That of establishing such rules for the conduct of the practical part of this undertaking, as, by enabling the Institution

Institution to exhibit a series of regularly recorded and conclusive facts, may best contribute to the improvement of a practice, which, though hitherto greatly successful, cannot be supposed to have arrived at that degree of perfection of which it is susceptible.

Guided by these views, the directors thought it best to commit the executive part of their undertaking to one surgeon, who engaged to devote a competent portion of his time to that object exclusively; to visit the different quarters of the town in rotation, for the purpose of inviting such of the inhabitants as were judged proper objects of a charitable establishment, to partake at their own houses of the benefits it held out: and lastly, to keep a regular record in a form prescribed by the Institution, of each case, exhibiting its appearance and progress at four different periods of the disease, when the patient was visited for that purpose. All this was to be transacted under the superintendence of a physician, who very liberally offered his services to the Institution with that view.

How far the plan of this institution has been calculated to secure the objects the directors have so much at heart; and how far the practical part of it has been conducted with skill, diligence and discrimination, the public will be enabled to judge, by a little attention to the leading facts now laid before them, which are meant to present an outline of the history of the Institution, for the six months that have elapsed since it began to act.

From the commencement of that period, viz. the 11th of Dec. 1805 to the 10th of June 1806 inclusive, there have been inoculated for the cow-pock, in all 1175, of whom 967 are regarded as complete and satisfactory cases; 98 are distinguished in the Register as unsatisfactory, because in these cases the pock having been broken by accident or scratching, its natural progress was so far altered or interrupted, as to render the protecting power of the disease from future small-pox somewhat doubtful; of course, the Institution does not charge itself with any responsibility in respect to these cases; the patients themselves, or their parents, having rejected a second inoculation, the only means of placing the matter beyond the reach of doubt.

A third set of cases, 69 in number, after being regularly inoculated and entered in the Register; the sequel is necessarily left blank, because the matter having failed to take effect at the first operation, no opportunity was afforded for a second, in consequence of a refusal of the

patients or their parents; a change of their place of abode, or some similar reason.

The remaining 41 cases are under vaccination.

Every person who will take the trouble to reflect on this subject, will perceive how deeply the interests of this discovery, and the improvement of its practice, are concerned in a due distinction of the cases into their different classes of complete, doubtful, and imperfect.

It will be more difficult to convince parents and patients of the great utility of a second inoculation called the Test, a few days after the first, as the easiest, and in many cases, the only means of removing all uncertainty respecting the event; and by that means, reducing the class of doubtful or unsatisfactory cases to a very few indeed.

Parents are easily satisfied when the common appearances present themselves, whether the pock be broken or remain entire; but experience has proved, that in such cases, no reliance ought to be placed but on a second inoculation or test.

No application ought to be made to the broken pock, but by the positive direction of the vaccinating surgeon.

The directors feel a peculiar satisfaction in being able, within six months, to present the result of so extensive a practice to the public, without having a single instance of death to charge upon it; it is admitted, that one child of three months old, and of a weakly constitution, was on the 9th day after vaccination, taken with vomiting followed by convulsions, which put a period to its existence; but it ought to be remarked, that the inoculated part made no progress after the sixth day, and that this is usually observed to happen when any new disease arises; add to this, that the parents themselves were satisfied, that the cow-pock had no concern in producing their child's disease.

Much has been said and written respecting the frequency of foul eruptions, as a consequence of cow-pock inoculation; and this, in fact, is an objection that has been urged against the practice in this town and neighbourhood.

If eruptions be a frequent consequence in other parts, we have been peculiarly fortunate in not being able to report more than six instances, where eruptions have appeared within a month after the completion of the process, in nearly a thousand cases of vaccination; where they did occur, the eruptions were of a kind incident to children from

from various causes, and speedily yielded to very simple treatment.

No other accident or inconvenience has been found to follow this disorder.

No instance of small-pox has occurred to any patient that has been vaccinated under the superintendence of the institution; and should any suspicion of this kind arise at any future period, it is earnestly requested, that a written communication to that purpose, may be sent without delay to any one of the directors, to Dr. Clarke, or Mr. Calton, at their houses, that the case, whatever it may be, shall undergo a fair and full investigation before it be too late to ascertain its nature.

The next observation we have to make, has a peculiar claim to the attention of the public, as affecting the main question at issue, *the protecting power of cow-pock from the contagion of small-pox.*

The small-pox was not known to be in the town at the time the practice of public vaccination was entered upon, but in a few weeks afterwards, the child of a traveller was brought to a lodging house in Charlotte Square, affected with the confluent small-pox, where others were exposed to the infection; the vaccinating surgeon, in compliance with his instructions on that subject, directed his whole attention to that neighbourhood, and by obtaining leave to inoculate the greater number of the poor thus exposed to the contagion, the natural small-pox happily ceased.

In the course of the two following months, the infection appeared in three other parts of the town, but was arrested in its fatal progress by the same means: we say *fatal progress,* because, out of seven instances of casual small-pox that came to our knowledge, two of the patients died, although medical aid was afforded them.

In one person who, although under the influence of small-pox contagion, had submitted to vaccine inoculation before the small-pox appeared, both diseases took place, but the small-pox was so mild that the patient recovered speedily, and with little inconvenience. From this, as a solitary case, no inference could be taken, but that it is found to concur with the experience of the most extensive vaccinators, who assert, that wherever the two diseases meet, the small-pox has generally proved of a mild sort. No greater argument can be offered to encourage vaccine inoculation, during an exposure to small-pox contagion, if the eruption has not actually appeared.

It is proper to remark, that the register makes it appear,

that out of the number inoculated, 507 exceed the age of two years, a circumstance which is brought in proof of the indifference of parents to this practice, although they could have obtained it without expence, either at the general hospital, or by the liberal offer of many of the surgeons of this place; it follows, that the advantages of so general a cow-pock inoculation, are due to the plan adopted by the Institution; with all its advantages, a considerable number, that were proper objects, have rejected the offer from religious scruples. We have, however, reason to congratulate the public, that vaccination has in this town been carried to an extent in six months, which does not appear to have been equalled in any town of considerably greater population, the report of whose public practice for the last year has reached us. This will appear by a comparison of the report of the vaccine establishments in Dublin, Edinburgh, Bath, and Newcastle, some of them of double, or even nearly triple our population, with the present report for Nottingham.

	Inoculated.
Dublin, 2d Report for 12 Months -	No. 1032
Edinburgh, ditto ditto -	- 1658
Bath, 1st Report for City, ditto -	- 354
Newcastle upon Tyne, ditto -	- 1708
Nottingham, 1st Report for 6 Months	- 1175

It remains for the public to judge, how far a charitable establishment for cow-pock inoculation in this place, has been attended with success, and how far it deserves future support; it is obvious, that this can only be done at a regular annual, and we think a moderate expence. Hitherto, the benefits may be regarded as confined to those individuals who have accepted them; the advantage to the community can only result from a permanent plan of early inoculation for cow-pock, such as may prove sufficient to prevent, or if it does appear, greatly to confine the fatal influence of the contagion of small-pox.

(Signed) G. COLDHAM, Secretary.

Independent of the practice of vaccination under the immediate direction of the Institution, as faithfully recorded in this report, some idea may be formed of its indirect extension, and the respect in which it is held in the vicinity of Nottingham, by the repeated applications for vaccine ichor, seventy-six separate supplies of which have been already gratuitously furnished.

The

The object of the above Report is to present to the public, a clear and candid statement of the practice of vaccination by this Institution, for the last six months. Professional men may not feel quite satisfied with the explanation given of the doubtful cases, after reading the assertion of Dr. Walker, in page 256, 545, Vol. 15th of the Medical and Physical Journal, where, he says, the induration or characteristic hardness surrounding the inoculated part about the tenth day, is the sure and invariable diagnostic mark of the true vaccine disease; but it is necessary at the same time to remember, that in page 431 of the same volume, we promised to put this opinion to the test of *experiment*.

Since which time, thirty-five cases of ruptured *pustule*, with *well marked induration* and erythema, have been re-inoculated.

Out of this number, three passed through the regular stages of vesicle, pustule, with distinct *induration* and erythema, scab of perfect form and colour. This is no hypothesis, but an undeniable statement, which the register of the Institution proves. Were *these* cases secured, had they been exposed to the variolous contagion before the last inoculation? We wish to put it as much as possible out of the power of any one to mistake our meaning. We say then, that *these three cases* had from the first inoculation a *proper degree of induration* and erythema on the tenth day; and the same result took place, and at the same time, by the last inoculation, three or four months after the first; but the scabs being preserved on the arm, presented the characteristic appearance so ably described by Jenner.

It gives us then, additional satisfaction to repeat, that no cases are by this Institution considered as perfect, that do not present the characteristic scab. But when the pustule is ruptured, re-inoculation is advised; if rejected, we do not consider ourselves responsible for the result.

The register presents one case, in which there was not any *induration* but a perfect scab; from which it appears that the characteristic scab is not a necessary result of the *induration*. These facts, which to us appear important, may be also thought deserving the attention of practical inquirers; their conclusions, however different, shall be appreciated with liberality and candour.

I shall beg permission to say a few words in answer to some of your correspondents.

In page 308, Mr. Creaser, and in page 319 of vol. 15th, Mr.

Mr. Ring, make some observations on the term *scorbutic*, which was employed in my letter addressed to the Royal Jennerian Society (for the style of which an explanation, has already been made, page 246, vol. 15th).

In answer to them, I shall explain what must be understood by the term *scorbutic*. It was used to express a constitution debilitated from bad food and foul air, with a roughness of the cuticle. I confess it was a vague term, but one that is well understood by medical men, although not nosologically accurate.

Mr. Ring, in page 320, vol. 15, comments on my remark respecting the pock being suspended during the presence of another disease in the constitution; it was not the suspension that was thought remarkable, but the peculiar appearance of the pock, where active disease was present; an appearance which I have not seen noticed in any other communication.

Dr Walker, in page 544, vol. 15th, censures Mr. Ring "with *other labourers* in the vineyard," and calls upon him for a decided test of the vaccine disease.

I am not to be deterred by this criticism on practical remarks from saying, that we have not any proof, that the circumscribed characteristic hardness is a certain and invariable test of the vaccine disease. If practical observation enable a man to contradict an assertion, which, if implicitly acted upon, might be injurious, he certainly does not deserve rebuke, but the grateful acknowledgement of the liberal and enlightened.

Nor is it by any means necessary, that the person who point out the fallacy of an opinion, should be obliged hastily to advance one, probably equally fallacious, to be refuted in its turn.

At present I know *no other means* of security in cases of ruptured pustule, but repetition of inoculation.

In all cases where it may be necessary to repeat the inoculation, a vesicle should arise, which, if the subject have from the prior inoculation been completely vaccinated, will desquamate between the fifth and eighth day.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

AS the superiority of the vaccine or cow-pock over the small-pox, may perhaps be best seen by a comparative view

view of their different effects; I think it may be of public utility to make known the result of the observations respecting both diseases, as they fell under my notice during a general inoculation, which took place here, and in the neighbouring parish of Burlston last month; in the first week of which I inoculated with variolous, or small-pox matter, 836 patients, of which number thirty had been vaccinated by myself last summer, and two, four years since; and four more by other gentlemen. These thirty-six were now variolated for their own satisfaction. I *now* also vaccinated twelve, of whom two were inoculated with small-pox matter within 48 hours after the insertion of the vaccine fluid; the other ten, with nine more, who had passed the cow-pock before, stood their chance, at present, without further inoculation.

The result has been as follows: of those variolated, viz. 300, although strictly dieted, well physicked, and, in general, highly and commendably attentive to all my directions, (which were strictly cooling and antiphlogistic), and although the weather has been favourable *for the season*, (a brisk North or North-East wind *generally* prevailing during the month) forty have had no more than a common sprinkling of pustules, giving a good deal of trouble to their friends; forty-five have had the disease so heavy, as to require constant attendance both by day and by night, during the eruptive fever and state of maturation, and have *all* been for a shorter or longer period blind; ten have been so dangerously ill, as to demand regular medical attendance, and have recovered with much difficulty, and in one or two instances, even against hope; and one has actually fallen a victim to the malignity of the disorder!

Whereas *all* (in number 57) who had been before, or were at this time vaccinated, escaped contagion from the small-pox, although they lived intermixed with those sick in that disorder, in the same village, under the same roofs, nay, in the same chambers with them: having themselves passed, what can hardly be termed a disease, without pain to themselves, or trouble to their friends; without attention to diet or regimen, and, what may be thought still better, without physic.

I am, &c.

Piddletown, Dorset,
June 4, 1806.

WILLIAM NEYLE.

To

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

TWO cases of paraphymosis have occurred in my practice since I had the pleasure of last addressing you; both in children, and both happening in the same way by tricks at school. I should certainly have considered them too trifling for your notice, if in one case there had not been retention of urine; by which it became interesting, and of importance. On inspecting the penis in this boy more closely, it was observed, that the orifice of the urethra was literally sealed up; it appeared on further inquiry, that this mischief had been brought on by rough handling, which had caused inflammation, and produced this obstruction, in which, probably, it might be a good deal aided by the stretched frænum bringing the opposite sides of the orifice into close contact. His bladder was much distended, his efforts to unload it were frequent and painful; I punctured with a lancet this barrier, and carefully carried it on until I was certain of having got to the extent of it; he had not immediate power over the bladder, but he was not long ere he got completely relieved by evacuating a large quantity of water. By puncturing also the crystallines below the glans, by a recumbent posture, and by the constant application of cold lotions, the retracted prepuce, in both cases, was brought into its original situation in a few days.

It is my intention to go on with the sequel of any case mentioned here, when any thing occurs that appears to me worth pursuing. The girl, whose case was given in a former statement, had a return of her complaint soon after that was sent you; which was attributed to too great indulgence in eating, joined with a state of costiveness; pain and vomiting returned with less violence than before; to which may be added, a quick pulse, thirst, urine high-coloured and remarkably loaded; swelled belly, uniformly sore, and with evident fluctuation. Leeches and a blister were applied to the abdomen, and pills with calomel and gamboge, and a powder with crem. tart. digitalis and ginger were given, and produced, after a few repetitions, an almost incredible discharge of fæces and urine: and she is now perfectly recovered. The powder was continued twice a day for a week or more, with evident advantage; and when the pulse got down, the warm bath was used every evening for a fortnight.

June 10, 1806. A PRACTITIONER in DERBYSHIRE.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I Request you to publish, for the criticism as well as the information of the medical public, a case of diseased bladder, with fistula in perinæo, &c.

I am yours, &c.

G. BELLAMY, M. D.

His Majesty's Ship Glory, Torbay, Feb. 15, 1806.

Mr. Andrew Sharp, aged about 38, came under my care the 22d Jan. 1806, for an affection in perinæo; a considerable hardness to be felt, and some enlargement to be seen at the root of the penis, or rather at the bulb of the urethra; feels much pain when touched, and a good deal of internal distress, with sense of fulness and aching, even when the parts are at rest; a great deal more when he evacuates urine or stools; the former runs off in a small narrow stream; does not stop, but requires a little time to begin. An old complaint, was under my care about six months ago, then relieved by small mercurial frictions on the part; is the effect believed of an old gonorrhœa some years ago, and by quacking with improper injections; occasionally a little gleet; looks ill with it; there is no redness, or heat, or sign of inflammation; but supposed to be a chronic thickening, or enlargement: probably the prostate gland is diseased. Utatr. ung. hydrarg. gr. v. bis in die part. affect. heri haust. cath. fotus com. et rep. p. r. n.

23d, Swelling undoubtedly larger, yet not hot or red, but more extensive, and very apparent, with great sense of fullness; pain in making water, but not interrupted, except being a small stream, as is always the case with him, more or less; the physic acted well. R. Fotus, & ung. hydrarg. Note, Should not wonder to see foundation of fistula in perinæo.

24th, I am sorry to say, notwithstanding my attempt to promote absorption, that the tumour increases very much, and even with a degree of inflammation, great pain, yet no re-action of the circulation; looks, and feels weak, pale, &c.; still shall persevere to repel, for fear of fistula. R. Ung. hydrarg. fot. &c.

25th, Tumour still large, but not more so, nor pointed, but very painful all night, and extremely sensible to the touch;

touch; feels most relief by fomentation. I rather hope it will break internally, and thus save an external wound or fistula in perinæo; yet even this may cause destruction, and find its way through; but on the whole better so than fistula in pernæo. A little oozing from the urethra, and more so when pressure is made on the swelling, and carried along that canal: seems to be from the abscess; if so, and it is like matter, may expect ease at least; has had no rigours. R. Ung. fotus. &c.

26th, Abscess is very large, nearly as large as a fist, and extending quite to the anus, and on its sides, a little thence up the perinæum, about two inches; will probably contain more than a pint of matter; begins to fluctuate, feels soft and pointing about the left side of the rapha perinæi, an inch and a half from the anus. Great deal of pain on being touched, a little ichorous-like or gleetish matter from penis, rather less than yesterday; the hopes of its bursting inside appear to be done away, and less sign of tracing any flow of matter from the urethra, by pressure on the abscess; strange he has no rigour, but has considerable fever; not great, or any reaction of heat, or fullness of pulse: it is rather quick, face pale and fallen, chiefly from pain; does not appear to be aware of the seriousness of his disease; not yet explained to him; bears it very well; does not groan; lies pretty quiet: got him into the sick birth, where much quieter, cleaner, and comfortable. Keep parts very clean, and him rather low; now must promote suppuration; no hopes of absorption. Appr. cataplasm emoll. ter die cùm fot. com. &c. This will become a very serious case.

27th, The abscess broke last evening, a day or two sooner than I expected; in the morning there was a little vesication, and oozing of serum, which appeared to be the effect of the heat of the poultice; he experienced instant ease; there was great fætor; a considerable spot of the integuments of the abscess broke down, and more about to yield, in form of a blackish-brown eschar; the opening will now admit the little finger; discharge chiefly of blood, and fetid dark matter (about six ounces); examined by introduction of the catheter as a staff, and to try what interruptions in the urethra; a little obstruction just about the curve, and on the corresponding internal side of the abscess, but it passed in tolerably easy to the bladder; a little matter and blood came through it; looks more like gonorrhœal matter than like that of the abscess, which it appears certain has not broken internally at all; as the

catheter

catheter is not to be felt by the minutest probing towards it through the wound; have great hopes that the urethra may be saved, and, in fact, the traces and directions of this abcess, though excited no doubt at first by disease of the urethra from obstructions there, causing inflammation, &c. I say, the direction and place of the abscess and its opening, appear to be posterior to the urethra, after it has curved under the pubis, and ascends to the bladder; and in that little space, left between the urethra and the anterior side of the rectum, a little laterally to the left of that gut, I examined thus: Catheter steadied in the bladder by an assistant, fore finger of the left hand in rectum bearing on the catheter, and then probing with the right; there is yet a good deal of thickening of the rapha, and teguments; so the probe is buried deeper, by the external state of the parts; goes in about an inch and a half; if all the swelling was reduced, suppose it might go half an inch at present; whatever further depth we have to apprehend, it goes deepest rather across the rapha, and obliquely towards the bulb of urethra; I feel by finger in the rectum, strong pulsation of branch of the pudical artery; at present do little more than cleanse the sore, and reduce the swelling. Rep. catap. op. omitt. ung hydrarg.

28th, Last night more of the eschar broken through, forming a second hole; divided the intermediate piece of integument, so as to present a wound full an inch in diameter, and of proportionate circumference; really a large wound; no urine has yet passed, nor air from the rectum, and hopes still remain, that communication with it may be prevented, or rather not take place: for all I can do to prevent, is to keep the parts very clean, support the system, and watch the general health or action of any virus, and to act surgically as in a common abscess of a delicate part; passed the catheter again, but with much more difficulty; much blood came through it from evident obstructions at the curve of the urethra; after several attempts and some force, got it into the bladder; he has no exact stoppage of water, but feels considerable pain in micturition; it always, but not more than formerly, comes in a narrow stream; swelling, inflammation, and pain considerably abated; very little discharge of blood or matter, bottom and edges still foul and ragged; will, I think, become much larger, before we get sound parts; a good part of the parietes of the abscess being disorganized, much more than I expected, almost as if acted on by caustic; finger in the rectum, feel the catheter distinctly, but considerably

siderably above, or before the rectum; so that I hope the destructive action of the abscess, though at first excited by venereal cause and obstruction in the urethra, will not extend to destroy its coats; in fact, towards it the probe scarce passes, but chiefly under the integuments; where some times however in these parts, we have disagreeable and extensive sinuses; the greatest direction of the probe is about an inch across the rapha; an aukward place, because, before it can heal, those cross layers must be divided, though apparently deep from thickening of the parts. I think it is merely beneath the integuments: such division must be aukward, as lessening the support of the loose folds of the perinæum and anus; but there is, I am sorry to say, a direction of the probe, though not easily found but in the most gentle manner, and by almost letting the probe find its way, by its own weight: thus a sinus is distinguished seemingly not of more capacity than the size of the probe, passing from the edge of the wound nearest the rapha close to the anus, and up along its left and rather anterior side, the probe being very distinctly felt by my finger in the rectum, just outside the coats, about an inch and a half in depth; not yet into the gut, though such is to be feared, or at least that it will go deeper, as the parts cleanse off, and allow the probe to pass more freely; unless on the other hand we find a kind action of nature, and restoration of parts from the bottom, so soon as all diseased action of the abscess is removed. Too soon yet to prognosticate, or look to radical means; let us hope for the best, and continue still to cleanse, palliate, and reduce the active state and effects of inflammation by poultices, &c.; keep the wound open (indeed it is pretty much so without) by lint. He is weak, reduced, and pale; no appetite, though now no fever to speak of; begin the bark, brace up and strengthen the stomach and general tone; encourage his spirits, and give moderate diet.

29th, I examined last night without the catheter; the only two parts of consequence in which the probe passes, are one about an inch under and across the rapha perinæi about an inch from the anus; it appears to be merely under the integuments, but thickened as before observed; this not being considered as likely to fill up and readily unite, especially as being loose from the parts beneath, with thickened ragged edges, or to waste away so as to produce a flat surface for healing, as it will not probably remain hollow, I have therefore to-day divided it with a scalpel, and cut off a little ragged thick angle of the inferior

ferior part of the side of the wound; bled about two ounces, but no arterial saltus; I have thus an open view of the wound, for it was larger within than without. Wound begins to cleanse, looking red in nobs, having a glandular appearance, especially towards the bulb of the urethra, which is nearly exposed: but the second and more serious consideration is the opening absolutely of the nature of a sinus, though it may become more open, and easy of access now, by this dilatation, because by cutting off the rapha the sides of the wound are fallen open considerably; yet last night again passed the probe up an inch and a half on the left, and rather anterior side of the rectum; felt only separated by the coats of the intestine. This I rather think it will be necessary to divide through the gut, because the nature of those parts of gut, skin, and membranes without, are so different; therefore not likely to agglutinate by granulations, besides, in all probability from the loose folding texture of all parts here, sufficient degree of inflammation cannot probably be produced for solid healing, to obliterate and close up to the sides of the gut, without some mechanical means of irritation; the knife also acting as a more explanatory principle, procuring a complete open wound, which may be dressed and acted upon by local stimulants, as caustic, &c. and bring the whole from even the bottom of the sinus to granulate; but however, it is to be hoped, as the gut is sound and as I have now so exposed the wound, which I was more led to do, to save time, and excite healing action, by freely exposing if possible the bottom of the whole abscess, thus in a degree to stimulate the parts where the probe passes, with hopes also of that healing up; and that we may succeed without it, we are doing almost all we can well do, short of dividing the gut; at all events too soon to do that, till we see what nature a little aided now and then can do, for of course it is very desirable to avoid dividing the rectum, even for such short extent. It is a great satisfaction, that neither the urine or fæces have found their way; indeed, except by ulceration it is certainly too far behind for the urethra, which no doubt is however diseased, and the first exciting cause of the abscess. The discharge of gonorrhœal-like matter is more; passes urine easier, and had a very copious loose stool last night, so have taken off pressure on the bladder, urethra, and wound, which has diminished the appearance and sense of tension: has hitherto been very abstinent; he is weak, yet on the whole better than could be expected; his mouth is sore, and spits some-

what; I thought he had naturally fetid breath, but it appears he exceeded the quantity of ung. hydrarg. when he rubbed in to repel; five grains twice a-day were ordered to the part, but he used half an ounce in a week; rather in his favour. Rep. cinchon. cataplasm ter in die. Gentle diet; he is quite easy, and bears it well.

30th, Although the general appearance of the wound is decidedly much improved, cleansed off, and beginning to look florid, with even a general sign of filling up, by rather large bulbous granulations; scarce any surrounding swelling, and no pain except when dressed; the parts lax, all the inflammatory stage and destruction of the abscess over, not the least mask of ulceration, also as a matter of great moment the sinus directed to the rectum is much more difficult to find, by no doubt a general disposition to contraction and filling up of I think healthy action, so that last night I could scarce find it, and then the probe did not pass so high;—yet against all these favourable marks there was last night a terrible disappointment; I had frequently inquired whether urine or air passed through the wound; always answered in the negative; yet to be better ascertained, desired him to keep his water till the evening dressing, to see him make it, which he did about half a pint; I suspected the evil before he had well begun, by seeing a trickling of thin fluid from the edge of the wound, which was fully confirmed whilst straining in the act of micturition by a dribbling of urine through the wound, pretty high up, above the bulb of the urethra, in the whole about half an ounce; gave very little pain and more sense of warmth. By close questioning he says he has felt to-day, when making water, a sense of trickling and heat there; he has no idea of the nature of his infirmity. This is a sad disappointment, but a reasonable event to expect, considering the internal disease of that part and the original cause, there evidently existing narrowness of the canal; passing the catheter requiring considerable trouble, the obstructions may be felt breaking down under it, a little blood and matter being forced out: so now we have decidedly fistula ex urethrâ in perinæo, as the principal object of attention; more puzzling than the suspected disease of the rectum, which apprehension has diminished. This must now be our object; we *may* hope by a good strong habit, and the promising state of the parts, although we have to conclude there is an extensive and long-existing contraction, and no doubt thickening and callosity with occasional fungus, &c. all from the original inflammation

of

of the urethra, to have so disorganized that passage, as to give however very poor hope of success by bougie; can we by it, as a mechanical instrument, expect so to overcome the contraction, disposition to callosity, occasional inflammation, &c. as to succeed in obliterating the diseased edges of the opening, or so to give good and effective action, as to get this fistulous opening to heal? We may hope it, and we must try it; but then should we succeed in healing it, we must expect by future advances of the disease and occasionally exciting causes, to find inflammation, abscess, and the consequent evil renewed: yet as we may hope, it is our duty to try, especially under such favourable health; even such occasional cure may by care last long, and by the continued use of bougies the internal disease may be almost obliterated, and of course permanent cure obtained. I know but of one other indication of cure more readily radical in promise, but liable to objections; I mean a free division of the parts, as in the operation of lithotomy, and taking bougies to our assistance at the same time; the direction of the wound is nearly that of the parts divided in that operation. Rep. cinchon. cataplasm, &c. restorative diet; is quite easy but weak, and giddy; the latter affection attributed to lying in bed.

31st, Had a very copious stool in the night, no fæces or urine passed through, nor last night when dressed; he then evacuated a little urine, but none through the perinæum: yet in the course of the day when he made water he felt a drop or two pass, but none came through to-day when he made water at the time of dressing; the opening at the side of the rectum much more difficult to find, and less deep; the general appearance of the wound still improves, florid, granulating, &c. but in its centre you see now pointed out by the hollow left, the trace to the opening of the urethra, or where it was, is partially closed; he spits more by the increasing effects of mercury; not against him. Rep. cinchon. Good diet; began to-day to act on the principles yesterday spoken of by the bougie, but they are so ill made, soft, and totally ill adapted, that I could not pass it further than the point of the obstruction; the least force to pass it further, upset all endeavour, although one of a moderate size; so in this I fear I am completely foiled. I have an idea of keeping in a small catheter, which though it will act only mechanically, will have this advantage, that it may be retained as long as you please, and not be withdrawn to make water; perhaps it will be for the best, as it can irritate only by its

pressure, the other might also by its parts; besides, the patient, when he wants to make water, has such sudden call that he cannot wait; it acts at such unequal times, so would be teazing, and obliged to have the bougie withdrawn; but a catheter, by means of the stillet, may be kept till pain or pressure alone make it necessary. On this principle it would be better that all bougies of common texture, and which could be long retained, were made all as catheters; which if more firm, as at all events they ought to be, might easily be the case, and when water necessary to be made could either (if formed even of a stimulant nature), withdraw the whole, or the stillet, according to the feeling of the patient. The superiority of the flexible metallic bougie here occurred to me, being at once more pliable and stiff, but even so they would be better formed as catheters; and as there are catheters so formed, where is the use of bougie at all, as the former will answer all the purposes? And here by the bye, now I think of it, the stillet of the gum elastic catheter is flexible metal, and being large is positively equal to a bougie of the nature required; so can try that to dilate the passage first gradually, before the silver catheter is used, and of the last, or of common bougie when once I can introduce it, may I not be able to act on the principle of Mr. Homes's bougies with caustic? I think I may be able, at least in the common bougie, to insert a bit of caustic.

February 1st, A dreadful change indeed has taken place; decided mortification; how far it extends, or how far it will go, I do not know, but he appears to be in imminent danger; and all this at once from the height of expectation, to my great alarm and the greatest evil to him; though in no pain, I scarce think it possible he can live; the wound is quite black all over, but principally the edges, and surrounded with that peculiar pale redness like erysipelatous inflammation, about the size of a crown piece, taking in the whole circle of the anus, thus far therefore, mortification will go; for we never yet saw parts having taken on this inflammation of gangrene, without in their turn falling into gangrene also; and as I fear (as will be shewn by and by from proper grounds), that the affection is deep; so that if life should be preserved, that the disease will go far beyond the integuments, and of course the rectum, some of the muscles, and also perharps scrotum and urethra slough off; what a dreadful state, therefore will he be reduced to; worse than death; if he lingers,

it

it will be under an accumulation of distress, but if he dies from gangrene, I think it will be in about 30 hours, under the prostration and final delirium of sphacelus; can I expect a man to live on whom has advanced on a sudden such deplorable symptoms? I shall relate the occurrences, and then leave judgment to decide.

(To be continued.)

To Dr. BATTY.

Sir,

MOST surgeons have experienced great difficulty in subduing those fungous excrescences which arise from the cerebrum, or its membranes, after the operation of trepanning. Such morbid productions are always dangerous, and I may add from the experience of gentlemen of the first professional eminence, they generally prove fatal. The remedies proposed in common treatises on surgery are insufficient: they are not grounded on any principles, nor detailed with that accuracy which the importance of the subject demands. The structure of such tumours has not yet been demonstrated, nor are the circumstances which tend to produce them known. Morgagni has thrown no light on the subject, and by Dr. Baillie it has been only mentioned superficially. The annexed case, in which an excrescence from the cerebrum, of unusual magnitude, was successfully treated, may therefore, perhaps, be deemed worthy a place in your valuable Journal. I have no theory to offer, nor any new remedy to propose; but every state of the case is particularly described, and I wish to invite those gentlemen who have opportunity, to investigate a subject which has hitherto received so little illustration from medical science.

I am, Sir, &c.

S. WARREN.

Milverton, Somerset, March 26, 1806.

On the 8th of August, 1805, Mr. John Butter, a farmer, about 23 years of age, of a sanguine temperament, was kicked by a horse on the superior and posterior part of the right parietal bone. My assistance was immediately required. I found the scalp much bruised and lacerated,

and a portion of it, as large as a crown piece, struck off. The pericranium was detached, and a fracture with slight depression of the scull was perceptible near the foramen parietale. The patient was totally deprived of sense, the pupils of his eyes were dilated, he breathed hard, and exhibited other symptoms indicative of compression of the brain. The circumstances of the case were communicated to his friends, and the necessity of applying the trephine was strongly urged. But their great dread of an operation, and the possibility that the symptoms might arise from concussion (the external appearance of depression being slight), induced me to make some previous trial of the efficacy of bleeding and evacuants. I therefore took away 12 ounces of blood, and ordered a purging dose of calomel, and a cathartic enema. On the following day, the evacuations having been insufficient, and the pulse being hard and oppressed, those remedies were repeated. By this treatment, on the 10th, some remission of the symptoms was obtained; but on the morning of the 11th, the coma, stertor, and sickness recurred with so much violence, that I determined to postpone the operation no longer. I removed the whole of the depressed part of the skull, by including it within the circumference of the trephine; and on examining the piece, I observed that a splinter of the inner table, projecting one fourth of an inch from its internal superficies, had pierced the dura mater. No hæmorrhage attended the operation, nor was any portion of the cerebrum lost. The dura mater appeared of a dark purple colour, and the wound in it made by the splinter of bone, was a narrow slit measuring about two-thirds of an inch in length. Simple dressings * were applied to the wound, and a saline mixture with the pulvis antimonialis was prescribed. Strict abstinence had been enjoined from the day on which the injury was received.

On the 12th, I found no alleviation of the symptoms. The patient's pulse still continuing hard and oppressed, he was again bled, and a laxative draught was prescribed.

13th, A favourable change had taken place. The patient's bowels had been copiously evacuated; his pulse was more free; the coma was so much relieved that he began to recognize those who attended him; the iris was again sensible

* White wax ointment thinly spread on lint.

sensible to the stimulus of light; and towards the evening, he uttered a few words, but too indistinctly to be understood. His bowels were in a proper state. The antimonial mixture was repeated.

14th, The patient had slept much during the night, without starting or alarm; he was now able to answer collectedly many questions. His skin was moist and his bowels regular. The wound began to secrete pus, but I observed that the dura mater looked unusually white, and protruded so as nearly to fill up the space left by the removal of the piece of bone. Simple dressings were continued.

15th, No perceptible change.

16th, At two o'clock in the morning a messenger informed me that my patient was materially worse. I found him restless, at times delirious, and complaining of a violent shooting pain in his head, his pulse beating 120 strokes in a minute, his skin hot and dry. Finding that his bowels had not been evacuated during the preceding day, I ordered an enema and a cathartic draught. These soon operated efficaciously: the pain in the head ceased, and the pulse was lowered. The appearance of the wound was not in any degree changed.

17th, The symptoms continued favourable. The patient conversed coherently, and could recollect the circumstances which immediately preceded the injury. His bowels were moderately relaxed. The protruded dura mater completely filled the perforation in the scull made by the trephine; it had entirely lost its silvery tendinous appearance, and looked dull and pale. The wound on the scalp was in a healthy state.

Until the 26th, no particular alteration occurred. On that day I observed, that the dura mater had risen above the external surface of the skull, and a slight pulsation was perceptible beneath. The same dressings were applied, and a strict observance of abstemious diet was enjoined. The general health of the patient gradually returned, but the tumour continued to enlarge. The dura mater began to slough, and fungous granulations from the cerebrum grew rapidly. I first endeavoured to check this excrescence by compression, and the application of argentum nitratum: but the slightest pressure induced dimness of sight and vertigo; I therefore discontinued it, using the caustic only. After a week had elapsed, the disease still increasing, I folded a piece of paste board between a linen cloth, and bound it on the tumour, augmenting the pressure by small degrees. No unfavourable symptom supervened

pervened, and I hoped by this means to prevent further protrusion, and that caustics would destroy the fungus already formed; its size, for a time, was evidently diminished, and the pulsation in it became less perceptible. During the month of October, some small pieces of bone were exfoliated from the border of the perforation.

In the beginning of November, the tumour suddenly increased to twice its former dimensions; and finding my endeavours to repress it unavailing, I determined to remove it by ligature. In about four days the whole of it sloughed off, and I attempted to prevent its reproduction by a bandage and pressure. But the granulations now sprung up so rapidly, that in three days a tumour was protruded as large as a turkey's egg, notwithstanding that caustics, and the greatest pressure consistent with safety, had been employed. The patient frequently complained of great pain in his head, he became feeble and low spirited, and at intervals his memory failed. It therefore became necessary to adopt some new plan. I procured two thin plates of silver, of a semi lunar shape, and applied their concave edges laterally to the base of the tumour, drawing them gradually closer to each other by strips of sticking plaister. These plates were daily removed, and argentum nitratum was applied to the line formed round the tumour by their pressure. By this mode the diseased mass was slowly detached, and in the course of fifteen days it was entirely removed. I then covered the perforation in the skull with a circular plate of silver, and retained it securely in its place by pieces of sticking plaister. This plate I was at first obliged to remove daily, in consequence of a considerable secretion of pus; but when the discharge ceased, I found great advantage in allowing the plate to remain unmoved for many days. A few fungous granulations sometimes appeared beneath the plate, but they were destroyed by caustic. In about three weeks the morbid disposition of the wound seemed totally subdued. The plate was removed, and a bandage with a linen compress substituted. The scalp gradually closed and formed a firm cicatrix, but the process of ossification has not yet taken place. The patient is in full possession of his former health and strength, his spirits are good, and his mental faculties unimpaired.

An

An experimental Inquiry into the Nature of Gravelly and Calculous Concretions in the Human Subject; and the Effects of Alkaline and Acid Substances on them, in and out of the Body. By THOMAS EGAN, *M.D. M.R.I.A.*

THE constant occurrence of these afflicting complaints in Simpson's Gouty Hospital, to which I have been physician for several years, first turned my serious attention to the most probable means of alleviating or removing them. But to obtain this desirable end, an examination into the nature of the predisposing and proximate causes; of the chemical and other properties of gravelly matter itself; and that species of calculus most generally resulting from its aggregation, as well as of the remedies, and their mode of operation, became indispensibly necessary. I must also acknowledge, that I was not a little excited to this inquiry by the consideration, that, whilst the medicines now most confided in by modern practitioners are supposed to exert no energy on those substances out of the body, yet their beneficial effects, taken internally, stand uncontroverted by the experience of almost every physician.

Induced by these motives, I had, as far back as the year 1799, instituted a series of experiments, in hopes of throwing some more light on this subject; and, perhaps, chemically explaining upon what ground alkaline substances in general alleviate, whilst acids as constantly aggravate, this afflicting disease.

But, knowing that Messrs. Fourcroy and Vauquelin had been, for many years, particularly engaged in the analysis of urine and its morbid concretions; and expecting, from their superior abilities in researches of this kind, that the object which I had in view would be more satisfactorily fulfilled, I did not wish to intrude any observations of my own on the public.

After, however, most anxiously attending to the result of their scientific labours on this subject, as they have been, since that period, successively detailed by M. Fourcroy, in the *Annales de Chimie*, Memoirs of the National Institute, and in his great and elaborate work the *Connoissances Chimiques*; and finding little, if indeed any thing, illustrative of the subject, to which I would wish to point the attention of the faculty as well as the public in general, I again latterly repeated, with much care, my experiment of 1799, and added some more, which may probably prove interesting in a practical point of view.

These,

These, with some observations, and deductions from them, I now, with diffidence, offer to the candour and consideration of the academy.

I must here premise, that the limits of an academic dissertation necessarily confine me chiefly to the consideration of gravelly matter itself, and that species of calculus which most generally results from its aggregation.

Though determined to intrude as little as possible on their time by an useless quotation from antient authors, who could have no clear ideas of the subject; yet the better illustration of my object, as well as a sense of justice, oblige me to go as far back as Van Helmont, whose great though eccentric genius first observed that the subject matter of calculus existed in the urine itself. But the flighty extravagance of his ideas, of which he has given us a specimen on this subject in his Treatise de Lithiasi, (a wonderful production for the time) caused little attention to be paid to his opinion; and it was reserved for the capacious and learned genius of Boerhaave first to ascertain, beyond future doubt, the presence of gravelly matter as a natural constituent part of urine, kept in chemical solution in it, and eliminated by it out of the system. Of this important fact no material use was made, until the all-prying genius of the immortal Linnæus induced him to request his friend Scheele to turn, for a moment, his great chemical abilities to the investigation of this subject; with what success is but too well known. And from this again had arisen the farther prosecution of this inquiry by the celebrated Bergman.

The result of the analysis of the latter was highly honourable to the former chemist, as they perfectly agreed in almost every particular, with the exception of some small quantity of insoluble matter, and the presence of lime, observed by Bergman; a difference now very easily accounted for; the former having examined calculi of the pure lithic acid, or, as it is now termed, uric kind, (by far the most common species,) and entirely soluble in pure alkaline lixivia and nitric acid; the latter, those of the mixed kind, consisting also chiefly of lithic acid, but with interposed laminæ; or probably a nucleus of either calcareous phosphate or oxalate of lime, which frequently occurs in a very large proportion of these concretions. We may also observe, that Bergman had not, at this period, an adequate idea of the large proportion and insolubility of animal matter contained in them.

From their joint analysis it was, for the first time, proved

proved that the subject matter of gravel, and of a very large proportion of calculi, was present in a state of real chemical solution in all healthy urine; that it was possessed of the following distinguishing chemical properties.

Insipid, inodorous, crystallizable, nearly insoluble in cold water, and only soluble in some thousand times its weight of boiling water; separable again from this, upon cooling, in a beautiful and peculiar crystalline form; of easy solubility in pure alkaline lixivia, which it renders sweetish, and neutralizes; precipitable from these again by the weakest acids, and still possessing its original crystalline form and properties. That, from these circumstances, with that of turning the vegetable blues red, it was of an acid nature, soluble in nitrous acid with effervescence; this solution tinging the skin and other animal matters red, and, upon evaporation to dryness, assuming a red rose colour: this last property being peculiarly characteristic of this substance; subliming in part by distillation, without any alteration in its properties, and affording carbonate of ammonia, and other usual animal products, partly from the admixture of animal matter, and probably some adhering urea. To these distinguishing chemical properties of the Swedish chemist, Fourcroy has since added the following: When triturated with a lixivium of either of the fixed alkalies, it forms a matter of a saponaceous consistence, very soluble with excess of alkali, but little so without it. The saturated urates of potash and soda are little sapid, soluble, or crystallizable. By precipitating their dilute solution by muriatic acid we obtain the lithic acid in brilliant needle-like crystals, very voluminous, a little coloured, tending to the yellow, or *fauve*, as he calls it. Ammonia exerts little, if any, solvent power upon it: lime water takes up a little. The alkaline carbonates have no action upon it; and this last circumstance, I would beg leave to observe, has continued to be the opinion to this day; but how far founded, will appear in the sequel. To this matter Scheele gave the name of *lithic acid;* by which it continued to be known, until our countryman, Dr. Pearson, has latterly proposed that of *uric;* a change greedily adopted by the French chemists, as being more particularly indicative of its origin. In compliance with the philosophers of both nations, I shall, in future, term it *uric acid,* and the concretions of that nature, calculi of the uric acid kind. The publication of Scheele's Essay excited the experimental inquiries of both chemists and physicians. His experiments were, accordingly, repeated

peated by several of our countrymen in particular; but with various, and in many instances different, results.

It was already cursorily observed, that Bergman's analysis differed from Scheele's in some circumstances, which he, even at that period, was disposed to attribute to a difference in the nature of the calculi which they respectively examined; and this conjecture has been fully established by every subsequent inquiry since that time. We accordingly find a paper of Dr. Dawson's, in the London Medical Transactions for the year 1769, showing these concretions to be of very different and opposite kinds, and of course, soluble in very different and opposite kinds of menstrua: as also a letter from Dr. Saunders to Dr. Percival, of Manchester, published in the third volume of Percival's Philosophical and Experimental Essays, in 1776, detailing several experiments; from which he fairly concludes that the Doctor's enthusiastic hope, of dissolving all calculi in a solution of carbonic acid, must prove groundless, from the very different nature of their component parts, as ascertained by his own experiments. This was placed beyond further doubt by our own learned and ingenious Professor Mr. William Higgins, who, in an analysis of a calculus, of which he gives an account in his Comparative View of the Phlogistic and Antiphlogistic Theories, (a work of singular merit for that period, to which we will afterwards refer,) and published so far back as 1789, enumerates the many various substances contained in one specimen only. The researches of Austin, Lane, and Brugnatelli, led to similar results. But to the learned and accurate Dr. Wollaston we stand indebted for the first clear and distinct discrimination of the component parts of these substances. In a paper read to the Royal Society in the year 1797, which would not discredit either a Bergman or a Klaproth, he has most accurately demonstrated, both analytically and synthetically, the component parts of three distinct species of calculi; namely, the fusible, as he terms it, or the ammoniaco-magnesian phosphate of Fourcroy; the mulberry, or oxalate of lime kind; and bone earth calculus, or phosphate of lime, which, with the uric, well known to us since the time of Scheele, left us then acquainted with the four species of calculi of most frequent occurrence. Under these circumstances I cannot help expressing my surprise at finding M. Fourcroy still assuming the merit of the discovery of all the different component parts of calculi, the uric acid and phosphate of lime excepted. This circumstance must appear the more unaccount-

unaccountable, when we consider that the communication of Dr. Wollaston's experiments was through the medium of the Transactions of the Royal Society for 1797. Finally, M. Fourcroy, to whom Europe stands not a little indebted for the present general diffusion of chemical knowledge, and to whom the medical profession owe the greatest obligations for his unremitted application to animal chemistry, has, in conjunction with Vauquelin, given us the result of his researches upon five hundred calculi; from which it appears that they contain the seven following ingredients:

1. Uric acid.
2. Urate of ammonia.
3. Phosphate of lime.
4. Ammoniaco-magnesian phosphate.
5. Oxalate of lime.
6. Silica.
7. Animal matter.

From the prevalence of any of these ingedients, or their relative proportions, he divides them into four genera; and these again into twelve species; for an account of which I must refer to the tenth volume of the Connoissances Chimiques, and the Memoirs of the National Institute; not proposing to go into their chemical properties further than may be necessary to my present inquiry; namely, of how far acids may be conducive to the formation, or alkalescent substances to the prevention, or even solution, of a large proportion of gravelly and calculous concretions. We have already remarked, that to the sagacity of Boerhaave we are indebted for the knowledge of gravelly matter being a constituent part of urine kept in chemical solution in it; and, happily for mankind, only separable from it after being some considerable time out of the body. After minutely detailing the ingenious means made use of by Boerhaave to ascertain this important point, to which I beg leave to refer, his commentator, Van Swieten, goes on to observe:

"Hoc calculi rudimenta adsunt etiam in urina hominum sanissimorum; quæ, si una cum urina secernuntur, antequam ab urina secesserint, et concrescere inceperint, nullo modo sanitatem lædent. Cum autem observatum fuerit, illam separationem rudimentorum calculi citius fieri in quibusdam hominibus, tardius in aliis, patet, illos magis calculo obnoxios vivere, in quibus citius hæc separatio arenularum obtinet. An quandoque illa separatio contingit

jam

jam in renibus, et in vesica, antequam urina expellatur de corpore? Certe videtur. Vidi sæpius, una cum urina excretum sabulum nephriticum expulsum fuisse, statimque, calente adhuc et fumante urina, in fundo matulæ subsedisse. Contigit aliquoties, inventam fuisse, in linteis sanorum infantum urina madidis, copiam sabuli nephritici, satis duri, quod videtur una cum urina excretum fuisse. Cum enim magna cura haberetur, ne hi infantes, (illustri genere nati,) diutius urinâ, vel aliis sordibus, conspurcati et urina statim per lintea penetret, vix videtur possibile fuisse, ut in urina jam emissa hoc sabulum productum fuerit, intra unam alteramve horum."

And again he adds: "Hoc sabulum, in urina etiam sanissima concrescens, vocari posset calculus nativus; a quo nemo liber est; at qui tunc tantum metuendus videtur, si cito in urina concrescat. Felices illi, in quibus tardissime hoc fit. Propriam sæpius examinavi urinam, lætusque vidi, rudimenta illa prima calculi separari quam tardissime, requiri quandoque horas viginti quatuor et ultra, antequam in sabulum majoris molis concrescere potuerint. Sed et, licet decimum tertium ætatis lustrum emensus jam fuerim, ab omni lithiasi immunis vixi."

The mode and appearances attending the separation and crystallization of this substance from healthy urine, is one of the most beautiful that, probably, chemistry affords. But, as the circumstances are so minutely and correctly detailed by Boerhaave, and his commentator, Van Swieten, in his treatise *De Calculo*, vol. v. p. 201 and 202, and correspond so much with my own experiments, so often repeated, I must refer to him. On this passage, however, I must observe, that the space of twenty-four hours, mentioned by him as the period of spontaneous separation, is by far, in the healthy state, too short, and that it extends to two, three, and sometimes more days, according to the existing temperature and other circumstances. Nothing, therefore, I will presume to say, is more erroneous than the assertion, repeated in almost every chemical book, that the uric acid separates from urine upon cooling. When this occurs, which frequently happens, particularly with children, the urine is certainly surcharged with this very insoluble substance.

An increased temperature hastens the incipient decomposition of urine, and its first ammoniacal degeneration is always attended by the deposition of its uric acid in its crystalline form.

This

This did not escape the observation of Hales, who tells us, that urine, tending to putrefaction, affords most of this acid substance; and, indeed, were it to be deposited upon cooling, or within the space of twenty-four hours, or even more, as is so generally asserted, it should every day present itself to physicians, who so constantly attend to the state of urine in glasses; but this is by no means the case: and we find Fourcroy, in his last publication, mentioning from twenty-four to forty-eight hours, which certainly only applies to summer heat, or the circumstance already mentioned.

Our next great obligation is, undoubtedly, to Scheele, who has made us acquainted with its nature, and the very distinct chemical properties already enumerated.

While in the state of gravel it is ever the same, whether passed immediately with the urine, or spontaneously deposited, or precipitated from it; a circumstance that, for a long time, continued to give me much surprise, considering the variety of calculi; but of the truth of which I was convinced by the examination of many hundred specimens for many years back.

I was therefore pleased to find, that Fourcroy, for the first time, in his *Connoissances Chimiques*, asserts, "les sables des reins sont presque toujours de l'acide urique." And in another place he says, speaking of the uric acid, "c'est lui qui forme les sables, qui se crystallize, et s'attache aus parrois de vaisseaux."

No wonder, then, that calculi of this kind should be of most frequent occurrence; and that, of five hundred analysed by Fourcroy, one-fourth should entirely consist of it, besides its occasional admixture with the remainder; and of three hundred, examined by Pearson, the greater number were found to be of this nature.

Having premised these necessary observations, we have now to consider to what circumstances we may attribute its separation, in a crystallized or aggregate state, from its natural solvent; the only condition in which it can be productive of inconvenience, or diseases of this kind. And first, I would observe that, being a natural secretion, of which the urine is only the vehicle destined to carry it out of the system, it must be subject to the same derangements with the other secretions of the human body, and may, of course, sometimes exceed in quantity, and at other times be more deficient; which last circumstance seems to take place during the continuance of acute diseases.

That

That a morbidly increased secretion does frequently occur, and that, too, independent of external causes, we have the most satisfactory proof of in the hereditary dispositions of many families to this complaint: and, indeed, when we consider the same to take place, relative to the functions and secretions of the liver, we must not be surprised at similar deviations in those of the kidneys. Here, truly, they are of more mischievous tendency, as, from the very sparing solubility of the uric acid, (even in its own natural menstruum, the smallest excess in quantity must subject it to precipitation.

Having premised these necessary considerations, I shall proceed to inquire into those circumstances which the experience and observation of all times have pointed out to us as the most frequent occasional causes of these maladies, and how far these opinions may be confirmed by experiments instituted for that purpose.

And first, it is a matter of notoriety, that the period of life, from infancy to about fifteen inclusive, is most subject to disorders of this kind.

Of this practical observation we have an interesting confirmation inserted in the second volume of the Memoirs of the French National Institute, Mathemetical and Physical Sciences, year 7. Under the former happy regime there was instituted, about forty years ago, at Luneville, in Loraine, an hospital for the exclusive relief of calculous and gravelly patients. In that interval, 1629, of both sexes, were admitted, and operated upon. Of these, 1564 were males, and only 65 females.

C. Saucerotte, an associate of the Institute, to whom we are indebted for these interesting details, annexes tables indicative of the number of these patients, that occurred at the different periods of life, from the age of one up to seventy-eight. To these, as too extensive to be inserted here, I would beg leave to refer; and shall satisfy myself with some extracts only, expressive of the general result.

Age of Patients. Male Sex.	Number of Patients.
1 year to 2	1
2 years	14
3	79
4	131
5	145
6	147

From

From this age, which afforded the maximum of the number of patients, we find a gradual declension as follows:

Age of Patients.	Number of Patients.
8 years	121
10	79
15	39
20	16
25	7
30	8
35 years	4
50	5
60	2
70	2
78	1

Of the sixty-five females,

Age of Patients.	Number of Patients.
1 year to 3	1
4	8
5	7
6	4
7	6
8	5
9	3
12	4
14	1

From which period, down to seventy-eight, there occurs but one or two upon each year. From these, then, we learn how much more subject the male sex is to those complaints than the female; and the earlier periods of life than the more advanced. For among the males in the sixth year we find 147 (the greatest number), and among the females only five at eight. From these periods, in both sexes, the numbers rapidly diminish.

These facts would lead us to conclude that some physiological cause, peculiar to the functions of this early stage, may give rise to this difference; and I will not pretend to say but this may possibly exist: but when we consider that in every country the infant poor are the greatest sufferers, we are induced to inquire further, and suspect the existence of some general cause affecting and applicable to them all. That a similarity of diet (in the children of this class of society, in particular) must every where nearly take place, is evident; and that this is, but too often, of the kind most prone to the acescent tendency, such as pap, gruel, sour milk, &c.; all which it is not always in the power of

the parents to renew, or administer, in a recent and sound state; an error not unfrequently occurring from the negligence of nurses even in the upper ranks, but irremediable in the lower; where this acescent tendency cannot be corrected by the seasonable admixture of broth, or other light animal food, their unhappy situation confining them exclusively, like their cattle, to the sole use of vegetables and the farinacea.

To pass on from infancy to the advanced periods of life, and begin with our own island, we find that, considering the extent of our population, the disease is of relative rare occurrence: so much so, that the late Mr. Dease, whose premature death we have still to deplore, as a national calamity,) with all his well deserved celebrity as a lithotomist, never operated upon more than sixty. A small number, indeed, when we consider that the operation is seldom, if ever, attempted in the country. And why this should happen here, we shall be presently, perhaps, better able to judge.

The reverse of this occurs in the sister kingdom; and the Irish student feels astonished at the frequency of the operation in all the London hospitals, though also performed in those of the more considerable country towns; and, upon inquiry, he finds that a large proportion of these patients come up from the cyder counties of Hereford, Devon, &c. and it must naturally occur to him, that the general use of fermented liquors of every kind, beer, cyder, perry, and factitious wines, which prevail in England, render the disease of more frequent occurrence there than with us, the great mass of our people being deprived of these luxuries.

If we pass over to the Continent, we find our neighbouring provinces, Picardy, Normandy, and Britany, in particular, still more subject to affections of this kind; so much so, that the late Mr. Dease could not give credit to the extraordinary number of patients operated on, in one year only, in the hospital of Rouen; though many must have, of course, repaired to Paris. The same, though in a lesser degree, takes place in Champagne; and it is almost unnecessary to observe, that the general beverage of the northern provinces consists of cyder, or of poor wine, equally acescent in its nature: and prone to the acetous fermentation. The Champagne, though somewhat less so, is replete with carbonic acid gas and disengaged tartarous acid; and though, in the more southern provinces, this

malady

malady cannot be considered as endemial, yet it is of frequent occurrence in the hospitals of Montpellier.

For, even in these favoured climes, where wine is of so little value, and withal so spirituous, the unfortunate peasant is obliged to content himself with an inferior quality prepared by a second maceration of the *marc* of the grape, which he denominates *picquet*; a *patois* appellation, most happily applied to its highly acid quality.

In that once happy country, Switzerland, on the contrary, as Baron Haller assures us, the disease is by no means frequent, and chiefly confined to the children of the poorer sort; their mountainous and elevated situations affording them little or no vinous liquors; whereas their neighbours, the inhabitants of the Rhine and Moselle, as well as some tracks on the banks of the Danube, are peculiarly afflicted.

The truth of this observation we find confirmed by the medical authors of all times. Silvius observes, "Vina acida tenuia et Rhenana, magis nocere calculosis quam opima;" and the same is particularly insisted on in Dolæus's "Encyclopædia Ephemerides Naturæ Curiosorum," and Rivinus's "Morbi Endemici," &c. Now, the wines in these countries are well known to be of an acid quality: and Hoffman asserts, and that too from experiments, that they abound in the tartarous acid, having found them to contain a double relative quantity of that in other wines; and to this we may add no small proportion of carbonic acid. Linnæus, in his dissertation "De Genesi Calculi," inserted in the second volume of the "Amœnitates Academicæ," seems more particularly to point out acids, and acescent drinks, as the chief causes of calculous affections. He says, "Acida fermentescentia omnia calculum promovent; hinc vina acida genesi calculi magis favent, quam dulcia. Qui acida vina copiose ingurgitant, podagræ et calculo plus exponuntur, quam illi, qui terras calidiores inhabitant, et dulcia vina hauriunt. Nec mirum, cum vini Rhenani libræ quatuor destillatione dant spiritus acidi drachmas quinque; et vini Tocariensis præbet spiritus acidi tantum semidrachmam, teste Hoffmanno. Sanissimus quisque a potu acido sæpe stranguriam incurrit, eo quod ab acidis ingestis particulæ terrestres præcipitantur." And again: "Quin podagræ igitur et calculus ab acido generentur, nullum est dubium, id etiam ab eorum communi cura, ad quam pergimus, luculentius patebit." Beverovic, *De Calculo*, 80, also observes: "In nullo vino tantum tartari apud nos accrescit, quam Rhenano. De me ipso, quod

etiam ex plurimis audivisse memini, possum testari, nunquam Rhenanum assumsisse paulo largius, quin copiose arenulas excrnerem."

The reverse of all this is observed to take place where the use of wine is prohibited. Rivinus observes, that in the city of Batavia, where the pursuit of commerce brings together a vast assemblage of the neighbouring Asiati nations, whenever the disease occurs, it is almost always in the instance of some Hollander, who, in his passage to India, drank freely of bottled beer, and used sour crout. In Persia, the same author, in his excellent treatise De Morbis Endemicis, observes, that whenever calculous affection occurs, either in Ispahan or the provinces, it is assuredly in the instance of some Arménian; fellows, (to use his word,) who, in every latitude, drink more wine than water.

Again, in Grand Cairo, where the proximity of the Grecian islands, and ready conveyance by the Nile, render wine of easy acquisition, and drunkenness and public houses as common as in any city in Germany; we learn, from Prosper Alpinus, that the disease is of very frequent occurrence; for, besides a mixed population of Franks, Armenians, Arabs, &c. the Mamelukes, as well as many other Turks of the higher ranks, do not, in deference to the Mahometan law, refrain from wine. The Cyprian and Grecian wines, if not adulterated, or become acescent by dilution, and the warm temperature of that city, are, in themselves, among the least objectionable. But, when we consider that Paris is chiefly supplied with Burgundy, and that yet in no part of the world does there occur more mischief from the attempts to keep down and correct its acescency, we shall easily form an opinion of the quality of the wine retailed in Cairo.

To this abstinence, then, from wine and fermented liquors; as also, perhaps, to the admixture of a large proportion of the warmest spices in their vegetable food, tending to correct its acescent tendency; we may ascribe the rare occurrence of this disease in the more southern climates.

Now, these more general remarks we find peculiarly to coincide with the observations of the patients themselves, as well as that of the physician; for such as have laboured under these complaints a sufficient length of time to become acquainted with the *juvantia* and *lædentia*, most scrupulously abstain from acids and acescent drinks of all kinds, and, what they find most particularly pernicious,

beer

beer or ales turning over to the acetous fermentation, or *hard*, as they are generally termed. And, indeed, nothing is more common, than that an indulgence in cyder, claret, or acidulated punch, nay a draught of hard beer or porter, should be followed by a fit of the gout and gravel.

The connection between these diseases forms an interesting and curious subject of physiological as well as pathological inquiry; but, proposing to offer some observations on this subject on a future occasion, I shall at present decline entering upon it, and pass on to observe, that the bad effects of all acidulous drinks are fully confirmed by the experience of our many sufferers in Simpson's hospital. Hewson, who lately died there at the advanced age of 102, never tasted the beer of the house during the summer months, and substituted milk for it; being taught by experience, that its acid tendency, during that period, always induced his gravelly paroxysms. And Clapham, who suffered much from gout and gravel, and was for many years a ship captain, informed me his voyages to America were always succeeded by fits of both; which he attributed to a free indulgence in the use of cyder, a beverage to which he was then peculiarly attached; and that, at any time, he could excite a paroxysm of one or the other, or both, by drinking acidulated punch, or claret. Khensk our greatest martyr (having all his articulations distorted by gouty concretions, and who once lived in easy circumstances,) assured me that the severest and longest protracted fit of the gout and gravel he ever experienced was occasioned by a surfeit of a poor vapid claret. And I shall conclude this part of my subject by observing, that the clergy of the Roman catholic church are peculiarly liable to these complaints, and form no small proportion of the number operated upon in this city; which I would attribute to the use of a small and sour wine during their residence in their seminaries abroad.

(To be continued.)

Botanical Description of British Plants.

[Continued from our last, p. 66—72.]

2. PRUNUS. *P. cerasus.*
Ang. Common wild cherry-tree.
Gen. Desc. *As above.*

Spec. Desc. *Umbels* mostly on short fruit-stalks. *Leaves* egg-spear-shaped, smooth, doubled together. *Leaf-scales* toothed. *Floral-leaves* three-cleft, serrated. *Leaf-buds* terminating; *fl. buds* lateral. *Bloss.* white. *Fruit,* red. *Woods, hedges.* Bl. May.

Use. The common people eat the fruit either fresh or dried; and it is frequently infused in brandy for the sake of its flavor. The gum that exudes from the trunk and branches, is equal to gum arabic. Hasselquist relates that, during a seige, more than an hundred men were kept alive for two months nearly, without any other sustenance than a little of this gum taken into the mouth sometimes, and suffered gradually to dissolve.—The wood is hard and tough; it is used by the turner, and is much employed for making chairs, and for staining in imitation of mahogany. This tree, which is the original stock whence many of the cultivated kinds are derived, loves a sandy soil, and an elevated situation.—*Linn.*

3. Prunus. *P. domestica.—P. gallicum. P. vulgaris. Ang.* Common plumb-tree.

Gen. Desc. *As above.*

Spec. Desc. *Fruit-stalks* mostly solitary. *Leaves* egg-spear-shaped, coiled. *Branches* thornless. *Flower-buds* producing no leaves. *Cal.* sometimes six-cleft. *Style* crooked. *Hedges.* Bl. April.

Use. From this species the varieties of the garden plumb are derived by culture.—The bark dyes yellow.—It loves a lofty exposure, and is favourable to pasturage.—*Withering.* When perfectly ripe and eaten in a moderate quantity, all the garden plumbs are a pleasant and wholesome food. But in an immature state they are more liable to produce colicky pains, diarrhœa, or cholera, than any other fruit of this class: attention to this circumstance is therefore necessary. Considered medicinally, they are *emollient, cooling,* and *laxative,* especially the French prunes, which are imported dried from Marseilles: and though the purgative power of these is diminished by drying, yet, it is observed by Dr. Cullen, that as they contain much of the acid which they originally had, they have more effect in this way, than the other dried fruits. *M. M.* 2. 254. They are found peculiarly useful in costive habits, and are frequently ordered in decoction with senna, or other purgatives. It is the pulp of this fruit which is directed in the lenitive electuary, or elect. è senna.—*Woodville.*

4. Prunus,

4. PRUNUS. *P. Insititia.*

Ang. Bullace plumb. Black bullace tree.

Gen. Desc. *As above.*

Spec. Desc. *Fruit stalks* in pairs. *Leaves* egg-shaped, slightly woolly, coiled. *Branches* reddish brown, smooth, ending in a thorn. *Stipulæ* narrow, fringed, cloven, sharp. *Cup* smooth. *Style* straight. *Flowers* white. *Fruit* black. *Hedges.* Bl. April.

Use. An infusion of the flowers sweetened with sugar is a mild *purgative,* not improper for children. The bark of the roots and branches is considerably *styptic.*—The fruit is acid, but so tempered by a sweetness and roughness, as not to be unpleasant, particularly after it is mellowed by the frosts. A conserve is prepared by mixing the pulp with thrice its weight of sugar.—*Withering.*

5. PRUNUS. *P. spinosa.*—*P. sylvestris.*

Ang. Black thorn. Sloe tree. Scroggs.

Gen. Desc. *As above.*

Spec. Desc. *Branches* thorny. *Fruit stalks* solitary. *Leaves* spear-egg-shaped, smooth, serrated; the serratures terminated by an excretory duct. *Leaf-scales* strap-shaped, toothed, points of the teeth as if dead. *Styles* sometimes 2. *Hedges.* Bl. March, April.

Use. The pruna sylvestria have been employed for their *styptic* power since the time of Dioscorides; and as their astringency is united to the refrigerant qualities of the fruit, they may sometimes supersede those medicines of this class which are of a resinous or heating quality. They have been recommended in *diarrhœas, hæmorrhagic* affections, and as gargles in *tumefactions of the tonsils* and *uvulæ.* Dr. Cullen considers the sloe as the most powerful of the *fructus acerbi,* and adds that he has often found it an agreeable and useful *astringent.* The flowers with their calyces are moderately *purgative,* and for this purpose one oz. infused in a sufficient quantity of whey, was found to be a pleasant and useful laxative. The powdered bark, in doses of one drachm, is said to cure *agues.*—*Woodville.* An infusion of a handful of the flowers is a safe and easy purge. The bark powdered, in doses of 2 drachms, will cure some agues.—*Withering.* The fruit or sloe is so sharply harsh and austere as not to be eatable till thoroughly mellowed by frosts. The juice is extremely viscid, so that the fruit requires the addition of a little water in order to admit of expression: the juice obtained from the unripe fruit, and inspissated to dryness by a gentle heat, is the German acacia of the shops, and has often been sold for the Egyp-

tian acacia.—*Woodville.* The fruit bruised and put into wine gives it a beautiful red colour, and a pleasant sub-acid roughness. The tender leaves dried, are sometimes used as a substitute for tea; and it appears to be the best substitute that has yet been tried. From effects which Dr. W. has repeatedly observed to follow from the prick of the thorns, he concludes that they contain something poisonous, particularly in autumn. Letters written with the juice of the fruit, upon linen or woollen, will not wash out. The wood is hard, tough, and is used for the teeth of rakes, and for walking sticks. This tree is not well adapted to grow in hedges, because it spreads its roots wide, and encroaches upon the pasturage; but it makes a good dead fence. Horses, sheep and goats, eat the leaves. —*Withering.*

Icosandria. Digynia.

6. CRATÆGUS. *C. aria.*

Anj. White-beam hawthorn. White-beam tree. Wild pear tree.

Gen. Desc. Cal. 5-cleft. Pet. 5. Berry beneath, opening at top, 1 celled, 1 or more seeded.

Spec. Desc. Leaves egg-shaped, cut, serrated, cottony underneath. *Cal.* woolly. *Petals* scolloped, woolly at the base, white. *Styles* 2 or 4, woolly at the base. *Seeds* 2 in each cell. *Fruit* red. *Woods, hedges, especially in mountains and in calcareous soil.* BL. May.

Use. The fruit is palatable when mellowed by the autumnal frost; and from it an ardent spirit may be distilled. The wood is hard, tough and smooth; used for axle-trees, wheels, walking-sticks, carpenter's tools, &c. It affords an excellent charcoal for the manufacture of gunpowder. It loves dry hills and open exposures; flourishes either in gravel or clay; bears lopping, and permits the grass to grow under its shade; but it rarely bears a good crop of fruit two years successively. Sheep and goats eat it greedily.—*Withering.*

Icosandria. Trigynia.

7. SORBUS. *S. aucuparia.*

Ang. Quicken-tree. Mountain ash. Roan tree. Service.

Gen. Desc. Cal. 5 cleft. Petals 5. Pomum 5 celled, open at the top, 3 seeded.

Spec. Desc. Leaves winged, smooth on both sides, rib channelled. *Leaflits* 7 or 8 pair sitting, spear-shaped, serrated.

rated. *Corymbus* terminating. *Berry* round, scarlet. *Seeds* 3, 4, 5, reddish. *Flowers* whitish. *Woods, hedges, mountains, boggy situations.* Bl. April.

Use. The berries infused in water produce an acid liquor, somewhat like perry, which is used for drink by the poorer people in Wales. Dried and reduced to powder, the berries make a wholesome bread; and an ardent spirit may be distilled from them, which has a fine flavour, but is small in quantity. In Germany the berries are used by fowlers to entice the red wings and fieldfare into nooses of hair suspended in the woods; hence its trivial name. The wood is soft, tough, and solid; it is used for making tables, chairs, wheelspokes, shafts, &c.; and the roots are formed into knife handles, and wooden spoons. It grows either in woods or open fields, but best on the sides of hills, and in fertile soil; it will not bear lopping; and plants grow well in its shade.—*Withering.*

8. Sorbus. *S. domestica.*

Ang. True service, or sorb.

Gen. Decs. *As above.*

Spec. Desc. *Leaves* winged, woolly underneath. *Bloss.* white. *Fruit* brownish. the size of a crab; cells 5; seldom perfects all the seeds. *Mountainous forests.* Bl. Apr.

Use. The fruit is mealy and austere, not much unlike the medlar. The wood is particularly valuable for making mathematical rulers and excisemen's gauging-sticks.—*Withering.*

Icosandria Pentagynia.

9. Mespilus. *M. germanica.*

Ang. Medlar tree.

Gen. Desc. Cal. 5 cleft. Petals 5. Berry with 1, 2, or 5 cells.

Spec. Desc. Thornless, woolly. *Leaves* oval-spear shaped, cottony underneath; towards the point serrated. *Leafstalks* short, channelled. *Flowers* solitary, sitting. *Cal.* terminating, hairy, fleshy, woolly within. *Stamens* unequal, 30 or more. *Summit* cloven. *Bloss.* white. *Fruit,* reddish brown. *Hedges about Minchiville.* Bl. May.

Use. The fruit, when it becomes soft by keeping, is very palatable, and many people are fond of it; but it is somewhat austere, and binding to the bowels.—*Withering*

10. Pyrus. *P. Communis.*

Ang. Pear-tree.

Gen. Desc. *Cal.* 5 cleft. Petals 5. Pornum beneath 5 celled, many-seeded.

Spec.

Spec. Desc. *Leaves* serrated, smooth. *Flowers* in a corymbus, white. *Woods.* Bl. April, May.

Use. The fruit is austere, but when improved by cultivation, highly grateful, as is proved by the great variety of excellent pears, which the industry of mankind has raised, for from this they all originate. The juice of the fruit fermented is commonly used as a beverage, known by the name of perry, which is chiefly made in Worcestershire and Herefordshire. The Squash, Oldfield, and Barland perrys are reckoned the best, and are little inferior to wine. The leaves afford a *yellow* dye, and may be used to give a green to blued cloths. The wood is light, smooth and compact; it is used by turners, and for making joiner's tools: of it also are made picture frames, which are to be stained black. It loves a fertile soil and sloping ground, but will not thrive in moist bottoms. It stands the severest winters, and does not destroy the grass. Horses, cows, sheep and goats eat the leaves.—*Withering.*

Pyrus. *P. malus.*

Aug. Crabtree, or wilding. *Cultivated var.* Apple-tree.

Gen. Desc. *As above.*

Spec. Desc. *Leaves* serrated, more circular than the P. communis. *Flowers* in umbels, sitting; *petals* white, tinged with red outside. *Woods, hedges, or cul. in orchards, hedge-rows.* Bl. May.

Use. The acid of the juice of the crab or wilding is called by the country people verjuice, and is much used in recent *sprains*, and in other cases, as an *astringent* or *repellent.* With a proper addition of sugar, it is probable that a very grateful liquor might be made of this juice, but little inferior to old hock. The bark affords a yellow dye. The wood is tolerably hard; it turns very clean, and cogs of wheels made of it obtain a polish, and wear a long time. It flourishes better on declivities and in shady places, than in open exposures or boggy situations; grass and even corn will grow under its shade. It is much used as a stock on which to graft the better kinds of apples, because its roots are neither killed by the frost, nor eaten by field mice. Horses, cows, sheep and goats eat the leaves; swine are very fond of the fruit.

The juice of the cultivated apple, fermented, is well known by the name of cyder, of which large quantities are made in Herefordshire, Devonshire, part of Worcestershire and Gloucestershire, and in the south of Ireland, in a soil of deep clay. The stronger sorts, as the Styre cyder,

cyder, will bear exportation to the East or West Indies. The cyder apple-trees were originally brought from Normandy; and it is supposed by many, that the liquors would be now improved by a fresh importation.—*Withering.*

12. SPIRÆ. *S. ulmaria.*

Ang. Meadow sweet. Queen of the meadows.

Gen. Desc. Cal. five-cleft. Petals 5. Caps. 4 or more, two-celled, 2 valved, many-seeded.

Spec. Desc. Stem angular, reddish. *Leaves* interruptedly winged; *leafits*, egg-shsped, doubly, but irregularly serrated, hoary underneath, bright green, terminating leaf three-segm. *Flowers* yellow white. *Cal. segm.* and *pet.* sometimes 4; caps. mostly 6, twisted. *Moist meadows.* BL. June, July.

Use. The whole plant has an *astringent* quality, and as such has been found useful in *dysenteries* and *ruptures.* A distilled water from the flowers has great efficacy in expelling the *measles* and *small-pox.* This plant has been used for tanning leather.—*Lightfoot.* The flowers infused in boiling water, give it a fine flavour, which rises in distillation. Goats are extremely fond of it; sheep and swine eat it; horses and cows refuse it.—*Withering.*

13. SPIRÆA. *S. filipendula.*

Ang. Dropwort. Meadow sweet.

Gen. Desc. As above.

Spec. Desc. Stem herbaceous. *Leaves* interruptedly winged; *leafits* strap spear-shaped, irregularly serrated, very smooth on both sides, mostly alternate; a pair of little leafits on the leaf stalk between each larger pair. *Flowers* in tufts. *Fruit stalk* crooked before the flowers expand. *Petals* cream colour, purplish underneath, turned back. *Styles* many. *Caps* numerous, disposed in a circle. *Mountainous, meadows in calcareous soil.* BL. June, July.

Use. The tuberous pea-like roots, dried and reduced to powder, make a bread, which in times of scarcity is by no means to be despised. Hogs are very fond of the roots.—*Linn.* When expanded and enlarged by cultivation, this plant is a beautiful addition to the flower garden.—*Withering.*

[To be continued.]

CRITICAL

CRITICAL ANALYSIS
OF THE
RECENT PUBLICATIONS
ON THE
DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND MEDICAL PHILOSOPHY.

The Edinburgh Medical and Surgical Journal, Number 7. July 1806.

Article 1.—*Observations on the Structure of the Parts concerned in Crural Hernia.* By ALLAN BURNS, Member of the Royal College of Surgeons in London, and Lecturer on Anatomy and Surgery in Glasgow.

THIS is a long paper, illustrated with two engravings; but engravings, to be useful for any intricacies of parts subject to surgical operation, should not only be as near to the size of life as possible, but coloured also. The eye never can follow, with any satisfaction, a mere black and white representation, which, for practical purposes, must be useless. As to the remarks, we give our author credit for some minutiæ which he describes; but as subjects of this kind can only be demonstrated on the recent subject, we shall leave the whole in the hands of the anatomical teachers, who doubtless will pay a proper regard to Mr. Burns's industry.

Article 2.—*Observations on the State of the Venereal Disease, by* JOHN WILSON, Surgeon to his Majesty's ship Porpoise.

THIS paper abounds with good sense, well directed, and accurately expressed. It will astonish some of our readers to find, that on the arrival of the Porpoise at Otaheite from port Jackson, Mr. Wilson should not be able to find a single case of well-established lues venerea in the island; and that there was no sufficient proof that any of the men were infected during their stay. The author's remarks are so judicious, that we cannot fail to give them in his own words.

"The total exemption of the inhabitants from lues venerea, and the unfrequency of gonorrhœa, both so irreconcileable with the accounts in voyages, and more especially with the assertions of the missionaries, could not fail to excite surprise, and, at the same time, an attempt on my part to investigate the merits of opinions so very repugnant to our experience; and the result of my inquiry proved, that the missionaries at least had adopted erroneous opinions respecting the nature of the many tumours and ulcers which are to be met with among the inhabitants; for they did not hesitate

to

to pronounce, that almost every tumour or ulcer, which came under their observation, had its origin in a venereal source.

"Their mistake originated partly from prejudice, and partly from being unqualified to discriminate; for they arrived at this island with as thorough a conviction of the prevalency of lues venerea amongst the inhabitants as we did, and it cannot be supposed that any of them have much medical knowledge. At the same time it must be confessed, that the accounts of the natives often tended to confirm them in this error; for, from a kind of vain credulity, they believe, or rather pretend, that their island, before their intercourse with strangers, was free from most of the diseases to which they are now subject; and thus lues venerea being, on all hands, allowed to be a foreign distemper, they of course most commonly ascribe their sores to that source."

The author afterwards quote several passages from Captain Cook and others, and concludes with the following remarks:

"From the foregoing statement it may be concluded, I hope, without incurring the censure of presuming too much, that, notwithstanding the melancholy accounts we read of the ravages of lues venerea at Otaheite, and even disputations about its first importers, this disease was not introduced there antecedent to the Porpoise's voyage; and that Captain Cook and others met with gonorrhœa only, which they supposed sufficient to produce all the symptoms of pox; and also that it must be sufficiently obvious that the nature of these infections is different, as we found the one prevailing, yet in no instance met with the other.

"However, although the first navigators are thus freed from having introduced this scourge of mankind, it is melancholy to reflect that its speedy importation was almost certain; for, before we departed from these islands, a small vessel arrived from Port Jackson, on board of which there was a man affected with bubo and chancres; and it is probable that the efforts of the master to prevent him from disseminating the infection would prove unavailing.

"Yet there remained a still more certain source of infection from two vessels which afterwards arrived from the Sandwich Islands, where, I have good authority for saying, the disease is very common. And whenever it is imported, there can be little doubt of its making a rapid progress, notwithstanding the benevolent efforts of the missionaries; for, from the danger, and, indeed I fear, the impossibility of making the natives submit to a mercurial course, it will be a very difficult matter to cure any of them.

"The great probability of their future intercourse with New South Wales becoming frequent, will also be a constant source of infection, and bids fair to destroy the intentions of the mission; for from that settlement they have already received, and will continue to receive, deserters, whose baneful example and instructions will not fail to counteract the benefit which would otherwise accrue to these courteous islanders from its exertions.

Article

Article 3.—*Remarks on the Depopulation of Otaheite and Eimeo, with an Account of some of the most common Diseases.* By JOHN WILSON, Surgeon to his Majesty's ship Porpoise.

THIS paper is no way inferior to the last, abounding with the same marks of sound judgment, the same industrious and unprejudiced spirit of research.

The first enquiry is into the probability of a greater population formerly. This is satisfactorily proved. Among the diseases, fever is the most common, beginning with symptoms of the intermittent, and proceeding to remission, under which the patient often continues till nature is exhausted, or the disease produces some local effect which relieves the constitution. As far as we can collect, the sufferers are the poorer sort, who sleep on the ground, from want of better food are less able to resist miasmata; and, when ill, are unable to procure those remedies and those comforts which may cure, or enable them to struggle through the disease. The principal remedy is a removal to the islands a few miles north. The author expresses a doubt whether the fever should be considered as contagious. From his account it seems probable, that, like many other diseases, though not originally contagious, yet among the crowded sick it generates a contagious fever partaking of its own type.

Dysentry is another very fatal disease among them. It raged with great violence whilst the Porpoise was at the island, but the author does not inform us whether it infected any of the crew. Probably it may become contagious only by the same means as their fevers.

Phthisis pulmonalis is more frequent, and becomes fatal sooner than with us.

Rheumatism is also not uncommon, and scrofulous tumours more frequent than in Britain. The author, however, makes allowances for the dress discovering every part affected, whilst in this country only the face, and sometimes the neck are discoverable, by being exposed.

Epilepsy and hysterics are not uncommon, and are considered as demoniacal possessions, or the effect of supernatural intercourse, during which the patients are supposed to be inspired. In consequence of this, some of the older women are very expert at working themselves into, or counterfeiting, hysterics. Some ingenious reflections are added on this subject.

The author concludes with the following very pertinent remarks.

"Some of the diseases which at present ravage these islands may, by some, be supposed to have been imported; but of this we can have no evidence; and probably all the elucidation the subject will admit of may be found in the analogy of many countries which have been long healthy and populous, suddenly becoming overwhelmed with disease and death, from some revolution in nature, which is likely always to remain a mystery.

"Although

" Although disease must have had a very powerful influence on the depopulation, yet the greatest share is to be attributed to a custom which, although it has been practised as a system by others, perhaps more civilized people, is of a nature the most barbarous and cruel that ever disgraced the species. This is infant murder, which is carried to such an extent, that some of the best informed of the missionaries have asserted, that at least two-thirds of the whole of the births on the island are destroyed the moment they have seen the light. Not only is the offspring of an unequal connexion with respect to rank, either on the male or female side, invariably destroyed, but young men and women, who are every way equal, frequently agree to murder the innocent fruit of their pleasures; and more females are destroyed than males.

" They appear to have no idea of any criminality being attached to this deed, and many of the women who had borne children, on being requested, did not scruple or appear abashed to tell us the number they had destroyed. The young king's wife, although not twenty years of age, has, I think, killed two, which she pretended, were begot by some of her domestic attendants.

" I have remarked, that at least two-thirds of the whole of the women on Otaheite are either middle aged or old, and that children are principally observed to be possessed by the former: for it is a very rare occurrence, indeed, to meet with a young woman rearing a child: likewise, that the whole of the females do not amount to above one-tenth part of the males; from which it may be inferred, that they do not often save their children until about or after their meridian, and that infant murder has been of late years more frequent than at the time when those middle aged and old women were born. The more frequent destruction of females sufficiently accounts for their disparity to the males. It is a mere question of course with the natives, on hearing the news of a birth, to ask whether it is preserved.

" They have many absurd customs in their treatment of children, particularly females, which certainly render the rearing of them exceedingly troublesome; but there is nothing of a sacrificial nature in their destruction: for, although they do not suppose that they incur their displeasure by it, yet they do not pretend that it is acceptable to any of their divinities: and, indeed, although they have some notion of a future state, it does not seem to have any influence whatever on their moral actions in this world.

" I am of opinion that infant-murder is more frequently practised since their connection with us, and that it will continue to increase in proportion to the number of ships which may for the future visit them, principally from the following considerations:

" *First*, From all the information which I could procure, I believe their only inducement to this cruel deed, independent of inequality of rank, or being an Arreoyie, which are always insurmountable, and from the construction of their succession, are

love

love of pleasure and avarice; and these passions, but more particularly the latter, have gained much ground since their intercourse with us: indeed, I have often been struck with astonishment, when observing the eagerness with which they hoard European manufactures. They are also as well aware as we are, that the charms of women who rear families sooner decay; and having experienced that female beauty is always a marketable article with their visitors, they have recourse to murder to preserve it.

"*Secondly*, At the Society Islands, where the same manners and customs prevail, and which have been less frequently visited by Europeans, infant murder is not so often practised; consequently these islands are more populous, although they appear at present to labour under disease in the same degree as Otaheite. It must, therefore, be concluded, that the frequent visits of ships tend to decrease their numbers, not only by inducing a scarcity of food, but by striking at the very root of population.

"War, undoubtedly, must be supposed to have considerable influence on their declension. In that which occurred in the interval between our voyages, it was said that five or six hundred perished, but these were chiefly old men and women; and this was the only war of any consequence since the arrival of the missionaries. There is also reason to believe that it was more frequent formerly than of late years, as the Bounty's mutineers and other deserters strengthened the authority of the present reigning family to a degree never before enjoyed by any chief. Therefore, war cannot be admitted to have had much influence in the present deficiency of numbers.

"The custom of offering human sacrifices we have no reason to believe to have been more frequent since their discovery. Probably the number offered will amount to twenty in a year, and, as they are always males, this cannot have a very powerful operation.

Polygamy may also have some effect; but as this custom must be supposed always to have existed, it cannot be considered to have had contributed to present depopulation.

Articles 4.—*Report of the Physical and Mathematical Class of the Institute, upon the Question, Are those Manufactures which emit a disagreeable Smell prejudicial to Health?*

THIS paper will be found among our communications. The Editors have thought it right to add some observations of their own. These may have been necessary in Edinburgh, but in London the law of nuisances is so well defined by frequent decisions, that it is unnecessary to do more than hint the general outlines of it.

All inconveniences are cognizable by the justices, with an appeal to the quarter sessions. All unhealthy occupations are removeable. In considering such as are inconvenient by the smell they occasion, or any other cause, the first consideration is, whether the town has

has extended to the nuisance, or the nuisance been erected in an inhabited part? In the former case, it is judged unreasonable to dispossess the first occupier. In the latter it is considered, whether the erection, though at first in an inhabited part, was raised without opposition of the neighbourhood, and for how long it continued so; and whether the present possessor gave a consideration on the presumption from former sufferance, that he might carry on his trade without interruption.

Article 5.—*History of the Guinea Worm, and of the Method of Cure employed by the Hindoos.*

THIS is an useful paper, and we sincerely hope that the author, who is not a medical man, has not been deceived by spontaneous cures. He remarks in the early part of the paper, that he administered his remedy almost always with success. "I say," continues he, "*almost always*; because in two or three cases it failed of producing its effect; the person who took it a first time refusing to take it again, which is often necessary when the disease is inveterate. However obstinate the disease may be, the remedy when taken a second time will carry it off, by forcing the worm to come out, if it be already formed, or by preventing its formation, if taken at an early stage of the disease."

A description of the disease follows, and of the worm also, as well as the supposed source of both. By the author's account, the probability would seem that it is imbibed with the common water of the country, and finds its way from the stomach to the extremities; but of this he is too cautious to speak decidedly.

"But whatever may be the cause or origin of the disease," continues Mr. Dubois, "it will be enough for me if the remedy I propose proves a specific for its cure; and I will now relate an instance which, independently of experience, would prove its efficacy. A long time before I was acquainted with this remedy, conversing with the natives on the disease, it was many times remarked that the Bramins were never or very rarely affected with it, although living in villages where the other inhabitants were constantly visited by it every year; but I never paid any attention to such a remark, considering it as one of those idle assertions so common amongst the natives, for which no apparent cause can be alleged, excepting in this case, to attribute that exemption as a privilege exclusively attached to the sacred character of that order of men. Reflecting, however, on that remark, after being acquainted with the remedy, I was led to suppose that this exemption of the Bramins from the disease must be attributed to the constant and daily use which they make of the *assafœtida*, or *peroongaayam*, as one of the principal ingredients in their food, which is also the principal ingredient in the remedy."

The paper concludes with a very sensible letter from Dr. Anderson, who, though less sanguine in the virtues of the remedy, pays a proper respect to this, as to every other suggestion, from whatever quarter,

Article 6.—*Case of Sphacelated Hernia, with Observations.* By GEORGE KELLY, Fellow of the Royal College of Surgeons, Edinburgh.

THIS paper contains some good cases of strangulated hernia which have ended fortunately, the natural passage of the fæces having been restored after an artificial anus had been for a time established. We believe such cases are not so rare as the writers suppose, but till the means of medical communication became so easy as at present, men were less anxious to inform the public of the resources of nature, than of the success of their own operations.

Article 9.—*Case of Tic Douloureux.* By GEORGE KITSON, Member of the Royal College of Surgeons, London.

IN this instance the pain was situated over the orbit of the left eye, immediately in the situation of the frontal nerve. This last was divided by an incision about an inch in length, directly above the eyebrow down to the bone. A spasm succeeded the operation, but from that time the patient has remained free. The wound healed by the first intent.

We would suggest, whether the success of this operation may not depend on the certainty of dividing the nerve and every collateral branch, which may have an immediate communication. In this case there is the fairest proof of such complete division of the nerve, as the skin of the forehead, in which the divided nerve is distributed, is now deprived of sensation. The operation was more simple than in the more usual place near the zygoma. In these cases we suspect the want of success may arise from some small branches of the nerves below the bony process being left undivided.

Article 10.—*Account of Dr. GALL's Discoveries regarding the Structure of the Brain.* By T. ROSENMULLER, Professor of Anatomy at Leipsic.

Article 11.—*The Enquirer*, No. 6. *On Herpes.*

EVERY practitioner is so sensible of the difficulty of distinguishing, still more of describing, cutaneous diseases, that we are all willing to give as much credit as possible to those who will undertake such a task. Perhaps, as in some other instances, one reason for this general candour may be, that, conscious of our incapacity to satisfy our own minds, we are glad of any authority under which we can shelter ourselves.

The present author attempts only three divisions of cutaneous diseases: papulous eruptions, which, without any discharge, terminate in scurf; eruptions which, though not prone to suppuration, discharge a serous fluid, and terminate in scurf and scales; and pustulous eruptions, which suppurate and terminate in crusts or scabs. Herpes the author confines to those of the second division. "The term herpes," says he, "should be confined to those clusters

clusters of minute *pustules* which do not end in suppuration, but discharge a serous fluid and terminate in scurf; sometimes in crusts. It will thus be separated from the simple papulous eruption on the one hand, and from pustular ulcerating affections on the other."

There is much appearance of accuracy in this statement, and it is far from our intention to discourage the endeavours of any one who will undertake so intricate a subject. But we wish every writer, who attempts correctness, to be first mindful of the importance of words: we are not pleased at meeting with the definition of *pustules* without *pus*, or *suppuration*. Perhaps we may be accused of unnecessary nicety in this remark, but we have too good an opinion of the Enquirer to think he will suspect us of any wanton severity.

The history given of herpes is too confined; it is, however, very correct of one species, excepting that, as far as our observations go, the patients are seldom in complete health. Towards evening a slight hectic comes on, during the exacerbation of itching, and sometimes pain in the parts affected is perceivable.

We were much surprized to find the author assert that this disease is not contagious. In cottages it is often found in the whole family, and will sometimes assume different appearances in different subjects, insomuch that nothing but the frequency of the occurrence would convince us that it is the same disease. Had our author witnessed these varieties, we think he would have marked some of them in his description of the disease.

The paper concludes with some rational curative plans, and a proper reflection on the danger that is unnecessarily apprehended from the application of local remedies.

Under the third department of this Number, or Medical Intelligence, we have an account of the Medical Topography of Berlin, with the public institutions for the cultivation of medicine and for the relief of the sick, and a list of the diseases for the year 1804: such records as these are always useful.—Dr. R. Pearson's mode of treating the hooping cough, which contains nothing new to our readers in the South; the custom of giving repeated emetics being happily exploded for some years past.—Mr. Wilkinson's letters on his want of success in repeating the galvanic experiments of Pacchioni and Mr. Peele, without producing a similar result.—A repetition of the old questions from the Cancer Institution, from whom every medical man has been impatiently expecting some report: [Are these gentlemen to be for ever questioning without informing? and is all their own and other peoples knowledge of that disease to remain for ever an arcanum, confined to their own archives?]—The names of the gentlemen who received Doctor's degrees at the last SENATUS ACADEMICUS, with the titles of their Theses; and the Quarterly Report from the Cary Street Dispensary.

The Domestic Medical Guide in Two Parts. Part I. The Family Dispensatory, or, a complete Companion to the Family Medicine Chest, &c. Part II. The Modern Domestic Medicine, comprehending the most approved Methods of treating and obviating the different Diseases that assail the Human Frame; with the most important Information relative to the Cure of those Chronic Diseases which have been generally considered Incurable. Third Edition considerably enlarged and corrected. By RICHARD REECE, M. D. late of St. Bartholomew's, and the General Infirmary at Hereford, Fellow of the Royal College of Surgeons in London, Author of the Medical and Chirurgical Pharmacopœia, &c. 8vo. 1805.

WHENEVER doubts are entertained as to the necessity of medicine and physicians, one answer is always at hand, and is perhaps the best as well as the safest that we can make. If no one were to study the nature of diseases and remedies, every one would be alike unable to propose the mode of cure, and more mischief would be done by those who are altogether ignorant, than by such whose education and experience, enable them to judge of the resources of nature, and of the properties of medicine. On this account, we are never averse to books of this kind, when they are written with caution, and pretend only to instruct families till they can procure the best advice. By these means they lessen the impatience of the ignorant, and prevent the mischief which might be done by the forward and conceited.

While we make these allowances for works not strictly correct, or to speak more technically, not perfectly regular; we cannot approve of that affectation of superior knowledge, which will always have a certain degree of effect with those who are not competent to judge. Thus, we think many of the authors *rubs* on Dr. Buchan might have been spared. It is true, that writer proposes opening the wind-pipe in cases, where no means of removing a substance from the gullet prove successful. To this, our author says, "What advantage can possibly be derived from making an opening in the wind-pipe, to remove a substance lodged in a different tube, must puzzle an anatomist to conjecture. Should an apothecary, not conversant in anatomy, attempt to relieve a person in great agony and apparent danger, by following the author's advice, and after making an incision in the wind-pipe, and not finding the obstructing body there, should be induced to cut into the gullet, the life of the patient would be inevitably destroyed."

Now we thought both these doctors had written for families, who could not procure an apothecary in time. For Dr. R. should recollect, that apothecaries are now generally like himself, Fellows of the College of Surgeons in London, or educated in the same manner. If a gentleman of this description should arrive, though, like Dr. Reece, he should submit to keep an open shop, yet the probability is, that he would dissect carefully for the gullet. But

before

before his arrival, the patient might die, for want of expanding the lungs from the mechanical pressure of the trachea by the substance lodged in the gullet. We have not seen what Dr. Buchan says on this subject, but certainly all this is to be expected; and forlorn as the chance may be, it probably is the only one for saving the patient in such an emergency.

Under the article phthisis pulmonalis, the author has availed himself of that division suggested by Dr. Adams, in his paper on the climate of Madeira, contained in the fifth volume of our Journal. We wish Dr. Reece had chosen a better term than adhesu (*ahesu* must be an error of the press), a very unclassical word, and by no means explicit, as it should rather be appropriated to common adhesion with the pleura when applied to the lungs.

Exposition on the Inoculation of the Small Pox, and of the Cow Pock. By JOHN COAKLEY LETTSOM, M. D. LL. D. and Member of several Academies and Literary Societies. Second Edition, 1806.

THIS is a well meant effusion on the advantages of a practice, which we believe, would have been more general, if its friends had been less zealous. But the same warmth of temper which leads to one system, is equally impetuous in another. Thus, the Ephesian matron, who could exist no where but by her dead husband's corpse, was the readiest at receiving the addresses of a living suitor.

This allusion is not entirely out of point, when we consider how great an advocate Dr. Lettsom was for small-pox inoculation, without even those cautions which Baron Dimsdale's good sense and moderation thought it right to propose; yet the Baron never condescended to call names: he conceived that Drs. Wilkinson, Lettsom, and others, had very good intentions, though they might be somewhat mistaken.

We are aware it will be said, that when Dr. Lettsom supported his friend Dr. Wilkinson, and others, the cow-pox was unknown. But what would this prove? That all prudent people have "it providentially *now* in their power to prevent the bad consequences which result from the small pox, by the medium of the cow pock." Unhappy the fate of those who formerly "were without this protection, when Dr. Wilkinson tells us, that the physicians to the society inoculate in narrow streets, in little courts, and in the midst of those who have not had the disease; and even on ground floors, where a number of children continue to play during the course of their illness; in short, where the intercourse between the well and the sick is unavoidable, and without taking the least care to prevent the infection from spreading." Such was the practice of one with whom Dr. Lettsom "entertained a similar opinion." What must have become of the unhappy manes of poor Dr. Wilkinson, who, there is reason to fear, died in his

sins; how much we rejoice, that our old friend Lettsom has lived to repent!

An Encyclopædia of Surgery, Medicine, Midwifery, Physiology, Pathology, Anatomy, Chemistry, &c. &c. &c. to which is added, an abridged Translation of Cullen's Nosology. By JOHN JAMES WALL, Surgeon, 1806.

THIS is a handy little volume, and contains more useful references than most others of a much larger size.

An Examination into the Principles of what is commonly called the Brunonian System introductory to a Series of Aphorisms upon Life and Mind, Health and Disease, with an Attempt to form a more simple and Philosophical Arrangement of Diseases, upon the present State of our Knowledge of the Animal Economy. By THOMAS HARRISON, *Member of the Royal College of Surgeons in London, &c. &c.*

THE only advantage we ever could find in the Brunonian system has been, that every one moulded it in some measure to his own opinion. We mean not John's own theory, for that was stubborn, and to that he died a martyr; but we mean the manner in which it has been at different times modelled; however, one thing is very remarkable, that no person to whom the public has looked up as possessing superior talent, has given himself any concern about it. The writer before us, is certainly a man of no mean abilities or inconsiderable erudition, and as such we hope to see him employed in some original work more worthy of himself than the subject he has now selected.

The author informs us that he felt particularly disposed to this task, by perusing Dr. Garnet's Lectures on Zoonomia.

"In pursuance of this intention," says he, "I shall consider the Brunonian System in four points of view; and endeavour to prove, in the first place,

"That its principles are not founded upon the true laws of the animal economy;

"Next, That they are contradictory and inconsistent in themselves;

"Thirdly, That they are not sufficiently general in their application to diseases; and,

"Finally, That they may lead to dangerous errors in practice.

"As it has been said by Dr. Garnett, that Brown did not clearly understand his own system; in order to meet the question as fairly and fully as the subject requires, I shall discuss each particular head of examination with a reference, as far as is necessary, to the sentiments of both these gentlemen, as delivered in their particular works; and as the favourers of the Brunonian System have ever been particularly desirous of making it appear that his theory

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is founded upon the principles of the Newtonian Philosophy, I shall require no other ground for my reasoning than these principles, taken in their fullest extent; and in particular Sir Isaac Newton's first rule of philosophising, and the law of gravitation, mentioned by Dr. Garnett as having been particularly kept in view by Dr. Brown in all his deductions.

"The first rule of Philosophising is, that no other causes of natural things ought to be admitted but such as are true in fact, and sufficient to explain the phenomena. This is agreeable to those received maxims, that Nature does nothing in vain, and that it is in vain to make use of more things where fewer will do as well; for Nature always takes the best and wisest course, that is, the most simple and free from superfluity. Gravitation, according to Sir Isaac Newton's Theory of the Universe, is that power by which all heavy bodies near the earth tend to its centre, with a force proportionate to their quantity of matter: by this law the moon also tends to the centre of the earth, and the waters of the sea to the centre of the moon; and by the equal and uniform action of the same power, the earth and moon, planets and comets, tend towards the sun and towards each other. In addition to these laws, the latter of which is a simple, beautiful, and sublime illustration of the former, I shall beg leave to add an axiom more intimately connected with the subject; an axiom that may be made as clear to our senses as any in Euclid's Elements of Mathematics, viz.

"That as life is only known in an organized body by its effects, and as the cause of an effect must be different from that effect, the effects of life cannot be life.

"The whole of the Brunonian Theory appears to be founded upon the application of the three words, incitabilitas, incitatio, and stimulus. Incitabilitas is by Dr. Garnett translated excitability, and incitatio by the English word excitement. These terms are so much in the vein of some of our late medical and chemical writers, that I hope the reader will pardon me a short digression in this place, while I express a sentiment of reprobation against the too prevalent practice of coining new words upon the most frivolous pretences. It appears to me not only pedantic and affected, and very much beneath an author who has any the most distant pretension to real knowledge, but it is even in its consequences highly injurious to the diffusion of science. Whenever I find a writer attached to this sort of coining, I immediately suspect, and generally find my suspicions well founded, that his ideas of his subject are not sufficiently clear, and that, by the intervention of new terms, not well defined, he endeavours to throw a mist before the eyes of his reader, that he may not discern his imperfections.

"If a word cannot be found in the language in which an author writes that will fully express his meaning, he will generally find one, which by adding to, or taking a little from the common received sense, will very well answer his purpose; the change will be

easily carried, with the general received acceptation of the word, into the reader's memory, and his deductions will become clear in proportion. In the case, alone, of such a word not being to be found in a language should the introduction of a new one be admitted.

"I trust this short digression will be found not altogether foreign to the subject, as almost the whole of Dr. Brown's new terms, and his old words with new meanings attached to them, will be found deserving of this censure to the fullest extent.

"Brown, in his general acceptation of the word excitability, appears evidentally to mean the vital and mental principle or life and mind. After stating the difference between living and inanimate matter, and the powers which he supposes to be productive of that difference, he proceeds to specify the vital and mental actions themselves, and their absolute necessity to life. He then says, 'Proprietas per quam utræque agunt incitabilitas dicenda.' Agreeably to this definition, I shall therefore wish the words excitability, vital principle, or life, wherever they occur in the course of this essay, except where a contrary sense is particularly attributed to them, to be considered synonimous, and that by them I mean to express the power which produces all the vital and mental actions. Dr. Garnett says, we may call this property, with Haller, irritability; or with Brown, excitability; or we may use the words vital principle. The term excitability he prefers, as perhaps least liable to exception; for what reason I cannot perceive, unless from his particular partiality to its author.

"Excitement, according to Brown's use of the word, is the effect of excitability, or the vital principle in producing the vital actions: 'Potestatum incitantium (incitabilitatem) communis effectus sensus, motus, mentis actio, et animi adfectus sunt.' And again, 'Potestatem incitantium, incitabilitatem agentium, effectus incitatio nuncupandus.' By stimuli or exciting powers are meant certain things, most commonly external, that are supposed to act upon the excitability, as above stated, and produce excitement, or the vital actions. Those of the greatest consequence are heat, food, air, the blood, and secreted humours, &c.

"As there appears some difference of opinion between Brown and his disciple respecting the application of the words excitability and excitement, and as much confusion of thought seems to run through this part of the Brunonian Theory, it will be highly necessary to endeavour fully to develope their meaning in this place; since the truth or fallacy of every conclusion formed by them rests upon the application of the above three terms.

"Dr. Garnett, notwithstanding his definition of excitability as above, seems in all his subsequent reasoning to have understood life to be placed in excitement. It cannot be that by the vital principle he means the nervous influence acting upon the nervous system, and producing the actions of life; for in this case his conclusion would be glaringly erroneous; because the nervous influence,

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or call it what you will, must still be acted upon by excitability, which would be the moving power, and the vital actions the mere effects of its influence. On the other hand, if we take excitability according to his own definition of the term, he makes the exciting powers act upon life to produce life. Now Brown is here perfectly consistent: he never calls the vital actions life; but says, what is the fact, that they are the only means of discrimination between life and death. By excitability, Brown uniformly means life itself, at least as far as can be collected from the whole tenor of his work: it is not only the mover of the sensorial power, but of all the vital and even the mental actions, 'sensus, motus, mentis actio, et animi.' The nervous influence, whatever it is, can only exert its powers upon the nervous system. The vital principle pervades every vital and mental action: perception, thought, sensation, circulation, respiration, motion."

We have made this copious extract, because we really know not how to compress the author's meaning; for he has, with much candour, given something like a meaning where we could discover none, embodied a fleeting shadow, and we despair of expressing ourselves with so much point and fluency as he every where shows. It may be from a want of patience, or from an impetuosity which might better become younger people; but whenever we discover a meaning about Brown or his followers, it amounts to so little, that we are never satisfied we can be right, or never satisfied that they are right. This discouragement has pervaded our every enquiry for the last twenty years that the doctrine has been afloat, and during that period we are all become too old, we fear, to mend. We were therefore much pleased to see a compact statement of the doctrine which the author felt himself obliged to make before he undertook to confute it, and we recommend the work to such of our readers as wish for information on a subject at one time so popular.

An Account of the Practice of one of the Physicians of the Westminster General Dispensary, and of the Western Dispensary, from the 20th of June, to the 20th of July.

ACUTE DISEASES.			CHRONIC DISEASES.	
Synochus	-	5	Cholera	3
Catarrh	-	1	Intestinal Hæmorrhage	1
Peripneumony	-	3	Acute Diseases of Infants	8
Pleurisy	-	2	Pulmonary Consumption	4
Acute Rheumatism	-	3	Marasmus	2
Hæmoptoe	-	1	Cough and Dyspnœa	17
Sore-Throat	-	2	Asthma	1
Erysipelas	-	2	Pleurodyne	2

Asthenia

Asthenia	9	Enlargement of the Heart	1
Hypochondriasis	2	Menorrhœa	2
Chronic Rheumatism	7	Chlorosis	1
Lumbago and Sciatica	3	Amenorrhœa	4
Cephalalgia	2	Leucorrhœa	2
Hemiplegia	1	Hysteria	3
Hemicranium	2	Prolapsus Uteri	1
Epilepsy	3	Scirrhus of the Uterus	1
Ascites and Anasarca	3	Lues	4
Dyspepsia	2	Lepra Venerea	2
Enterodynia	3	Psora	1
Diarrhœa	8	Porrigo	1
Worms	2	Herpes	1
Hæmorrhoids	1		

The acute diseases which have been under my care during the last month were not severe; those which have not already terminated favourably are going on well.

A very frequent complaint in the summer season is synochus. This fever continues from ten days to three and four weeks, is not contagious, and often arises from using too great exertion during the heat of the day. It is preceded by languor, heaviness, and debility; a general sense of chill succeeded by increased heat of the skin and a quick pulse; pain in the head and occasionally delirium; general restlessness, anxiety, and depression of mind; with a frequent, and at times painful respiration; a white, and in severe cases, brown and parched tongue; great thirst and aversion to food; are the symptoms which usually denote the presence and progress of this disease. The state of the bowels is various; in some cases diarrhœa continues during most of the time, while in others costiveness requires attention; the urine is generally of a high colour. As far as my experience goes, young men are the most frequent subjects of this fever; though neither age nor sex is exempt. In the cure of this mild species of fever, one great object is not to do harm, by administering violent medicines, or reducing the vital powers by bleeding and copious evacuations. To keep up a gentle moisture on the skin, to encourage the patient to drink freely of cool diluting liquids, and to avoid costiveness, will generally be found sufficient; where however the debility is great, and the delirium urgent, more powerful remedies, as the preparations of bark, camphor, or opium, may be exhibited. The cold affusion would most probably shorten the period of the fever, and often entirely stop its progress; but poor people when attended at their own habitations, in general, dislike

dislike the practice, and neglect the proper application of a remedy which has our warmest admiration; and whose discoverer merits the general gratitude of mankind.

Paralysis, which most frequently attacks people who have passed the middle period of life, and those chiefly who have been addicted to intemperance, sometimes visits the young and innocent.

The case of hemiplegia reported this month, occurred in a girl five years old. She was seized in the night with a fit, and continued two hours in a state of insensibility; when a little recovered she was unable to articulate, and had lost the use of the arm and leg of the right side. A week afterwards she had a second fit, which continued six hours. Previous to her first attack she complained of pain and heaviness in her head, and three days after the last fit was delirious for several hours. About this time she became a patient at the Dispensary; her arm and leg hung useless by her side, and she could not speak; these were the only perceptible indications of disease, and I could not discover any probable cause for the fits. Knowing that the bowels of children are frequently disordered, and that from their want of proper action, complaints apparently unconnected with them are sometimes produced, I gave every other morning twelve grains of pulvis scammonii cum calomelane, and in ten days the child was completely well; a blister to the nape of the neck, and friction, were the only other applications used during the time of her being at the Dispensary.

Southampton Street, Strand, July 22, 1806. S. FOTHERGILL.

Account of Diseases in an Eastern District of London, from June 20 *to July* 20, 1806.

ACUTE DISEASES.		Amenorrhœa	7
Rubeola	3	Fluor Albus	6
Ophthalmia	4	Hypochondriasis	3
CHRONIC DISEASES.		Hæmorrhois	2
Tussis	8	Rheumatismus Chronicus	14
Dyspnœa	9	PUERPERAL DISEASES.	
Tussis cum Dyspnœa	7	Ephemera	4
Phthisis Pulmonalis	4	Mastodynia	3
Hæmoptysis	2	Dolores Post Partum	2
Cephalalgia	4	INFANTILE DISEASES.	
Gastrodynia	6	Erysipelas Infantilis	3
Enterodynia	4	Vermes	4
Anasarca	5	Pertussis	6
Ascites	2	Marasmus	4

A List

A List of the Diseases of the Patients admitted at the Public Dispensary, in Lancaster, in the Year 1805.

Ague	13	Female Complaints	43
Fevers	101	Epilepsy	5
Measles	100	Nervous Complaints	26
Small-pox	67	Mental Derangement	1
Cow-pox by Inoculation	35	Stomach Complaints	93
Erysipelas	5	Worms	55
Diseases of the Eyes	54	Bowel Complaints	61
Diseases of the Mouth	28	Hæmorrhoids	12
Quinsy	2	Jaundice	6
Croup	4	Dropsy	17
Catarrhal Affections	133	Rickets	8
Hooping Cough	27	Scrofulous Affections	31
Asthma	41	Scald Head	7
Consumption	19	Ulcers, &c.	89
Pleurisy	14	Cutaneous Eruptions	91
Acute Rheumatism	10	Sprains and Bruises	56
Chronic Rheumatism	50		
Calculous Complaints	24	Total	1278

Cured	1162
Relieved	50
Died	37
Remaining	29
Total	1278

MEDICAL AND PHYSICAL INTELLIGENCE.

Extract of a Letter from Capt. MACNAMARA, *in the Hon. East India Company's Service, to the Editors of the Medical and Physical Journal, dated Oct.* 24, 1805.

"DURING my residence at Cheltenham, this autumn, a circumstance occurred to me that, as thousands may be benefited by its being made public, I request the favour of your rendering it generally known through the extensive circulation of your publication.

"I was proceeding towards the Well on the morning after my arrival, accompanied by Mrs. Macnamara, when we met a woman carrying a child, whose face was covered with an ill-looking eruption,

tion, which bore so strong a resemblance to the Small-pox, that it alarmed us considerably, as we had our only child with us, about six weeks old, who had never been inoculated. Our apprehensions led us to enquire of the woman the cause of this shocking appearance, when she informed us, *That the child had been inoculated about twelve months back with the Cow pox, and had, in consequence, been in that condition ever since.*—Having intended to consult Dr. Jenner respecting the inoculating of my own child with vaccine matter, I was so far staggered by this circumstance, as almost to give up the idea of it, when fortunately happening to communicate my fears to a friend, an eminent physician in London, he gave me so very favourable an account of the new practice, his own son having undergone it without a moment's uneasiness or difficulty, that I immediately waited on Dr. Jenner, and frankly avowed the whole to him. He delivered himself so clearly and satisfactorily on the subject of vaccination, that I not only resolved on having my child inoculated, but felt it incumbent on me to trace what I now was fully persuaded would prove to be either a mistake or a gross misrepresentation. I therefore waited on the mother* of the child, accompanied by Mr. Liddle, a medical friend, when she told us *the child had never been inoculated at all*, but that she intended taking it to Dr. Jenner for that purpose, since the Cow-pox inoculation had entirely cured another of her children,† who had been afflicted with a similar eruption.

"The reflection that, had we quitted Cheltenham without any investigation of this affair, we might, innocently, have been the instruments of propagating a most injurious falsehood, persuaded both my friends and myself of the absolute necessity of publishing the case as it really is. I should not only have been convinced myself that this was an instance of Small-pox, or something as bad after Cow-pox; but should have publicly declared *the fact* as happening within my own observation and knowledge.—Without dwelling on the consequence this might have been to others, I cannot but remark that my child might have suffered disfiguration, if not death, from the Small-pox; whereas, on the contrary, by having been inoculated with the vaccine matter, she is now rendered proof against that loathsome disease, without having ever suffered a moment's uneasiness, or having the least mark on her person, except that left on the arm by the vaccine pock.

"Under the full assurance of all agreeing that so valuable a discovery and important benefit to mankind ought not to be checked by similar ignorance or malevolence, I trust you will allow the circumstance a place in your widely-circulating publication."

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* The woman whom we first saw with the child was its nurse occasionally.

† We understand this child, of whom the nurse made the false and wicked report, was afterwards vaccinated, and the skin, as in the former instance, became almost immediately after perfectly free from eruptions. Such instances are become familiar to us. Ed.

An important fact with regard to the theory of electricity, has recently been discovered by M. Bienvenu. By varying his experiments he has found, in contradiction to the received opinion, that glass and rosin produce the same kind of electricity, and that the difference depends upon the rubbers. With a cat's skin he electrizes an electrophorus of rosin, which manifests negative electricity; an electrophorus made of a piece of glass, and rubbed with a cat's skin, manifests exactly the same kind of electricity as that of rosin. This experiment proves, that if the conductor of an electrical machine constantly gives positive electricity, the reason lies in the morocco cushions, which possess the property of developing the electricity of glass, which, received on the conductor, communicates to it a positive electricity. To prove this, he substitutes cushions of cat's skin in their stead; the glass is then negatively electrized, and the conductor furnishing it with the electricity it has lost, manifests a negative electricity.

The following receipt for keeping flies out of apartments and stables, and driving them away from horses was sold in a sealed cover at the Leipsic Michaelmas fair, at a high price, and had a very extensive sale. Put into an earthen pot half a pound of cantharides, an ounce and a half of grain seed; mother-wort, sassafras, root of St. John's wort, and spirit of ants, of each half an ounce; a quarter of an ounce of orpiment, a good handful of savin, the whole cut small or reduced to powder: close the pot hermetically, luting the interstices of the lid with flour-paste. After the contents of the pot have boiled sufficiently, take it from the fire, and let it stand 24 hours in a cool place: then uncover the pot, and with a feather smear the frames of the windows and doors, both of apartments and stables, from which you are desirous of keeping the flies. A single coat is sufficient for the whole season; but if the rain should chance to take it off, care must be taken to renew it. The smell of this preparation, which is scarcely perceptible to man, is so insupportable to flies that there is not a single instance of one having entered by an open window or door to which this liquid has been applied. To keep them away from horses, it is sufficient to besmear the harness, the girth, or the saddle, with this liquid.

The following decree has been issued by his Catholic Majesty the King of Spain, on the occasion of some experiments made at Carthagena, with respect to the efficacy of anti-contagious fumigations. "Don F. de Borja, commander in chief at Carthagena, having made known to the King, in different Reports, the important services performed by Don Michel Cabanellas, during the prevalence of the contagious distemper which raged in that place, his Catholic Majesty was particularly struck with the importance of the experiment made by him in one of the hospitals of the said city,

city, where he shut himself up with fifty persons, in order to prove the efficacy of the acid fumigations, and actually slept with his companions, including two of his own children, in the beds where many patients had recently fallen victims to this terrible disease, without employing any other preservative means than the mineral acid fumigations, as directed by M. Guyton. His Catholic Majesty, moreover, learned with the most unfeigned satisfaction, that the result of the experiment was so fortunate, that the fifty-one persons, after having been strictly confined in this lazaretto, had come out of it in a state of perfect health. In consequence, and in order to afford a proof of his royal munificence, his Catholic Majesty has remitted to each of the galley slaves who voluntarily submitted to this experiment (not having previously undergone an attack of the yellow fever) one year of the time they were sentenced to remain in chains; and he farther caused his approbation of their conduct to be notified to them by his captain-general. To Don Michel Cabanellas his Catholic Majesty grants the title and honours of physician to his Majesty's household, with an annual salary of 24,000 reals, to be paid monthly from the funds of the community of Carthagena; at the same time has conferred on him a right of voting in the municipal body of that city, in the same manner as if he had been a natural born citizen. The king, besides, charges himself with providing for his two children, whose lives, like his own, were exposed for the interest of the state and of humanity."

An infallible Remedy for stopping Hæmorrhages from the Nose. —This remedy has been universally in use for more than a hundred years in the province of Frisia, but was kept a profound secret until M. Tjalingii, apothecary, at Amsterdam, made its composition public, which is as follows:

R. Sacchari Saturni unciam unam, vitrioli martis unciam semis, seorsim terantur in mortaris vitrio, adde spiritus vini uncias octo. M. Of this composition, young people from ten to twelve years of age, are to take 10 or 12 drops; patients under twenty years, 14 or 15 drops; and grown persons 20 drops, four times each, in a spoon full of wine or brandy. He himself has made some very interesting trials in the most obstinate cases, with the greatest success. By analogy, he recommends the same medicine for the cure of hæmorrhages of all kinds, particularly of the uterus, which often prove very tedious.

Mr. Home has furnished to the Royal Society an interesting paper on the comparative anatomy and physiology of the camel, particularly on its stomachs and water-bags, in which it can retain a quantity of water sufficient to support itself for several weeks.

Mr. Davy has discovered that the acid, which exists in minute quantities in the wavellite (the new fossil from Barnstable) is the fluoric

fluoric acid, in such a peculiar state of combination as not to be rendered sensible by sulphuric acid.

M. de THREBA, superintendant of the mines of Freyberg, and Professor Lampadius, have lately ascertained, by repeated experiments, the relative temperature of the internal parts of the earth. Having placed, at different depths in the mines, two of Reaumur's thermometers, and compared them twice every day with another exposed in open air, they found that whatever difference of temperature prevailed above ground, one of the two thermometers placed in the mines uniformly indicated 12° above zero, and the other $9\frac{1}{2}$°.

A letter has recently been received from M. REHMANN, the physician in the suite of the Russian embassy to China, dated Kiachta on the frontiers of China, October 14, 1805; in which he says, that he has vaccinated a great number of the children of the Mogols.

The first fasciculus of the long expected Flora Græca of the late Professor SIBTHORP, edited by Dr. SMITH, will make its appearance in a few days. It will consist of 50 plates, beautifully coloured, with descriptive letter-press. This splendid work will form, when compleated, ten volumes in folio, containing one thousand figures, executed by Sowerby from the masterly drawings of Mr. Ferdinand Bauer.

Mr. ASTLEY COOPER will in a few weeks publish the concluding part of his great work on Hernia.

LIST OF NEW MEDICAL PUBLICATIONS.

Observations on the Nature, Kinds, Causes, and Prevention of Insanity. By Thomas Arnold, M. D. Fellow of the Royal College of Physicians, &c. the Second Edition, corrected and improved, in 2 Vols. Price 1l. 1s.

Dr. Willan, on Vaccine Inoculation, 4to.

Admonitory Hints on the Use of Sea Bathing. By J. Peake. 1s. 6d.

Observations, &c. on the late Epidemic Disease at Gibraltar; intended to illustrate the contagious Fevers in general. By S. H. Jackson, M. D. 5s. boards.

A Letter to Mr. Birch, in Answer to his late Pamphlet against Vaccination. 1s. 6d.

A Reply to the Anti-Vaccinists. By James Moore. 2s.

TO CORRESPONDENTS.

Dr. Hamilton's Observations on Digitalis, with Cases of Hydrothorax, and Dr. Kinglake's paper, in Answer to Dr. Kentish, will appear in our next Number.

Communications are also received from Mr. Laureuse, Mr. Atkinson, and Dr. Jardine.