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

For the London Medical and Physical Journal.

Strictures, in Reply to Mr. Wright's Objections to the Operation of puncturing the Membrana Tympani; by J. VALE ASBURY, Esq. Member of the Royal College of Surgeons, and Licentiate of the Society of Apothecaries in London.

I HAVE recently noticed, in "an Essay on the Human Ear," by Mr. Wright of Bristol, objections to the operation of puncturing the membrana tympani in those cases of deafness which arise from obstruction of the eustachian tubes; and a dissent from the conclusion drawn in my observations on some particular states of the organ of hearing, which were published in the Medical Repository for October 1817, in those cases where the faculty of hearing continues after the membrana tympani is destroyed, and the ossicula auditus have come away. In these particular instances, I suppose that the membrana fenestræ ovalis must remain entire; otherwise, the aqueous contents of the labyrinth would escape, whereby all power of hearing is completely destroyed. In reply to which, this gentleman argues in a manner somewhat singular:—"Now, when, from scarlatina or cynanche tonsillaris, the bones come away with the membrana tympani, it arises from the ulceration that affects the whole membranous lining of the mouth and pharynx; and this lining being continued, and extending itself down the eustachian tube into the cavity of the tympanum, the diseased action must be general; and, the stapes being fixed by fine membranous filaments into the cavity of the fenestra ovalis, which are destroyed by the ulceration, it is the first bone, generally, that comes away: therefore, the covering which, it has been observed, the base of this bone with its membrane affords to the fenestra ovalis, is necessarily destroyed; and no vibration, it will seem, can

therefore take place by that aperture, for want of the necessary membrane."—p. 76. Unless Mr. Wright, at the same time, had proved that, when the membrana fenestræ ovalis is destroyed by ulceration, the power of hearing continues in a greater or less degree, his argument, it will be found, does not militate against the principle which I advanced; viz.—when the hearing continues after the bones of the tympanum and its membrane are destroyed, the membrana fenestræ ovalis must remain entire; though he venture to assert, in the same paragraph, "but I cannot agree in the conclusion this gentleman makes upon his own reasoning." On the contrary, this writer coincides with the opinion of Mr. Cruikshanks, and observes, in p. 77 of the above essay, —"His [Mr. Cruikshank's] opinion was clearly the same as mine—that the destruction of the fenestra ovalis would obliterate hearing;" and the experiments, moreover, which led to this opinion "were made on dogs, who were found to have some sense of hearing after the membrana tympani, malleus, and incus, were destroyed."—p. *ubi sup.* Here it is quite obvious that Mr. Wright, when commenting on my remarks, makes, in his view of the subject, a distinction without a difference; for, if he admit, on the one hand, "that the destruction of the membrana fenestræ ovalis would obliterate hearing," he cannot consistently dissent, on the other, from the conclusion that, "in these cases [i. e. where the hearing continues,] the membrana fenestræ ovalis must remain entire, otherwise the aqueous contents of the labyrinth would escape, whereby all power of hearing is completely destroyed."*

From this writer's remark, that "no vibration, it will seem, can take place by that aperture [fenestra ovalis], for want of its necessary membrane," and also from his omission (when describing the structure of the internal part of the organ of hearing) of this anatomical fact, that the labyrinth contains a fluid: from these two circumstances it would appear, that he conceives a vibration in the membrana fenestræ ovalis, or membrana fenestræ rotundæ, as the essential medium for conveying the impressions of sound to the auditory nerve; but a minute investigation of the mode in which this nerve is distributed, and of the membranes and fluid of the labyrinth which are immediately in contact with and support this distribution, will prove that something

* From the paper I published, *on the Function and some particular States of the Organ of Hearing; with a description of a newly-invented Instrument for puncturing the Membrana Tympani*, in the London Medical Repository, vol. viii. p. 199.

more is required to convey the impulse of sound to the nervus auditorius than a mere vibration of the membranes seated in the fenestra ovalis and the fenestra rotunda. I will suppose, for a moment, the labyrinth to consist simply of a bony box complete on all sides except the external, in which the deficiency of the bony case is supplied by two distinct membranes occupying two separate apertures, and which are technically termed the fenestra ovalis and fenestra rotunda. This box is completely filled with a fluid and membranous canals, which, on entering it by the fenestra ovalis, take a very intricate course, (hence this part of the organ is denominated the labyrinth,) and ultimately terminate at the fenestra rotunda. On these membranous canals, and on two sacculi, which have a particular situation in the labyrinth, there will be found the ultimate distribution of the auditory nerve. The aqueous fluid of the labyrinth suspends and maintains the membranous canals and sacculi, which are connected to the surrounding bony case by a loose cellular tissue, in a fit state for receiving the expansions of the auditory nerve on them; thus enabling the impulsions of sound to make an impression on these expansions; and this fluid is confined in the labyrinth by the membrana fenestræ ovalis and the membrana fenestræ rotundæ, which complete the external side of the box. In this view of the interior of the organ, the undulatory rays of sound, striking against the membrana fenestræ ovalis, communicate an undulatory motion to the aqueous fluid of the labyrinth, which undulation is received by the expanded extremities of the nerve, and thence transmitted through the branches of this nerve to the brain. These undulations in the fluid of the labyrinth are rendered perfect and uniform by the membrane that occupies the fenestra rotunda, which, from its elasticity, yields in some degree at the time the impulse of sound is given on the membrane of the fenestra ovalis: without this particular construction, the vibrations of sound are in themselves too feeble to make any impression on the incompressible fluid within the labyrinth; and, supposing a compressible substance in this part of the organ, it would then be unfit for passing the impulsions of sound forward to the expansions of the nerve. It is now evident that the great use of the two membranes in the external side of the box is to confine the aqueous fluid in the labyrinth, which fluid is the medium of communication between the auditory nerve and the fenestra ovalis; and, when either of these membranes are destroyed, the box itself becomes incomplete, the fluid in it escapes, the membranous canals contract, the expansions of the nerve are lost, and

thus the individual becomes permanently deaf. From these considerations we can readily conclude "how far the membrana fenestræ rotundæ may (when the membrana fenestræ ovalis is destroyed) convey the sounds partially," which, it is the opinion of Mr. Wright, "we are yet to learn."

The objections which this gentleman makes to puncturing the membrana tympani, in those cases of deafness arising from an obstruction of the eustachian tubes, are, it is obvious, more founded on theory than on practice; they are as follow:—

"It is well known that no atmospheric air can naturally pass into the cavity of the tympanum, except through the eustachian tube; by which, I presume, it becomes regulated in temperature to those parts to which it is eventually destined.

From the anatomy of the ear, it appears that the two fenestræ, or apertures, leading to the more sensitive parts of the organ, are each protected by a membrane; and, both by the situation of that, as well as the apertures themselves being opposite to the membrana tympani, I am led to conclude they are not calculated to receive immediate, but reflect, sounds."

This last objection, which is founded on "the anatomy of the ear," and allowing the above statement of it to be accurate, would rather make for than against the operation; for, if the two membranes on the external side of the labyrinth were directly opposite to the membrana tympani, the natural conclusion is, that both of them are certainly destined to receive immediate impressions from without, and not to reflect them from within the organ, where the impulsion ought to pass onward to the auditory nerve. Again, admitting that a power of reflection does take place from the membrana fenestræ ovalis and the membrana fenestræ rotundæ, these membranes, if they be situated opposite to the inlet of sound, must, in the first instance, receive immediate impressions. But a more correct view of the membranes in the fenestra ovalis and fenestra rotunda will show that the membrana fenestræ ovalis, *only*, is immediately opposite to the membrana tympani; while the membrana fenestræ rotundæ faces the mastoid cells, making an obtuse angle with the plane of the membrana tympani: so it would appear that the latter membrane is calculated to reflect, and the former to receive, the sonorous rays. As the above objections, however, as well as that "founded on the chemical properties and changes atmospheric air undergoes by passing into the human body," have their origin merely in supposition, it is only necessary for me to observe further, that

practice, in several cases, has proved that the membrana tympani may be punctured, when the operation is judiciously performed, without the slightest bad consequences arising to the internal parts of the organ, either directly from the operation itself or from the temperature of the air, or from the direct action of the sonorous vibrations on the delicate membranes of the labyrinth. And Mr. Wright himself observes, that "many persons, beside the North-American Indians, can drive tobacco-smoke from the mouth through the meatus externus, and yet have acute hearing;" which, being viewed impartially, is of itself sufficient to put aside all his supposed objections to the operation. For, if it be established as a fact, (and, as cases are on record in proof of it, I do not see on what ground it can be denied,) that the sense of hearing continues when there is an opening in the membrana tympani, it is of very little consequence how this opening came there; and, however sceptical Mr. Wright is, or may remain, "as to its being more than a *lusus naturæ*," we are perfectly justified in making an artificial aperture, where deafness arises from a permanent obstruction of the eustachian tubes, so as to restore individuals to a greater perfection of hearing than they can, in any other way, experience when labouring under such obstructions.

My own practice, and that of others, warrants this conclusion. I have punctured the membrana tympani in two cases, and I succeeded instantly in restoring the faculty of hearing to the utmost of my expectations; though the sense of hearing, after the operation had been performed, was not quite so perfect as it is in a natural state of the organ, yet the degree of benefit derived from it was such as fully to authorize a repetition of the practice in any subsequent case of a similar nature; and the remaining imperfection of this faculty was not a hindrance to the enjoyment of a free conversation. But this gentleman observes, that, "by perforating the membrana tympani, a painful sensibility of hearing takes place, which goes off by degrees, till the faculty is nearly or quite obliterated." I trust I do not misapprehend the writer in supposing that he means—till the faculty *of hearing* is nearly or quite obliterated; and, if he do not mean the faculty of hearing, his own arguments will again prove, independent of those I could adduce, and others that may be gleaned in the above observations, that an opening may exist in the membrana tympani without any material diminution in the auditory sense. True it is that a painful sensibility of hearing takes place immediately on perforating the membrane, which, as the parts internally become accustomed to the new impressions of sound, gra-

dually goes off, leaving the patient's hearing greatly amended; and this amendment continues so long as the artificial opening remains pervious. But this increase of sensibility does by no means form any objection to the performance of the operation; because it has been, and may be obviated, by introducing a piece of cotton-wool into the external meatus, so as to prevent for a time the rapid access of air into the tympanum; and, by taking this precaution, no injury to the interior parts of the organ, or even inconvenience to the patient, can arise.

It is a singular fact that Mr. Wright should, in his objections to a practice that in some cases has been successful, but which he himself never found to succeed, judiciously omit to point out, in his enumeration of causes occasioning obstruction of the eustachian tubes, that cause which would in itself produce an obliteration of these passages; and in which case the operation, if carefully performed, will never fail to restore, in a great degree, the original power of hearing:—I mean inflammation of the eustachian tubes, terminating in a secretion of coagulable lymph, which, when coagulated, completely closes them; and then the blood-vessels and nerves of the membrane lining these tubes shoot through this coagulated lymph, forming a new fleshy substance that entirely obliterates the passages, precisely in the same manner, and as permanently, as a deep wound, made in any fleshy part of the body by a sharp instrument, is healed by the first intention. In this instance, Mr. J. Wathen's plan of injecting the eustachian tubes, and which Mr. Wright advocates, will never succeed in restoring the passages, any more than the act of injecting the cicatrix of a wound, after it is healed, will again produce a wound. What, then, remains to be done in these cases? The cavity of the tympanum, with an obstruction of the eustachian tubes, is similarly circumstanced to a common drum with a cork placed in the aperture on the side of it, and hermetically sealed, which, on beating it, will be found greatly diminished in tone; but, by removing the cork, and allowing a free communication between the air without and that which is within the drum, its full tone is again restored. So it is with the tympanum, or drum of the ear: an obliteration of the eustachian tubes cuts off the communication between the external air and that contained in the cavity of the tympanum; and, being thus confined, its undulation is prevented, so that the sonorous impulsions cannot wholly be transferred to the fluid of the labyrinth, and, in consequence, the sense of hearing is greatly defective: but, if this ear-drum be made to communicate with the atmospheric air by

a small aperture in its membrane, a due impulsion of sound is given to the aqueous fluid in the labyrinth, the expanded nerve receives it, and the individual recovers the sense of hearing.

The writer of the above essay, however, does not conceive "the operation is ever serviceable;" and, as a concluding paragraph in support of his opinion, he observes—

"Where obliteration or closure of the eustachian tubes has taken place, it arises chiefly from the causes I have mentioned, except when a nasal polipus may, by protruding into the pharynx, occasion an obstruction: the latter, of course, will be relieved by the removal of the tumor; and, from the former causes, the ulceration is so extensive that it mostly produces the effects I have just mentioned, and, in such cases, little, if any thing, can be attained by the operation."

With all due deference to Mr. Wright, it is necessary, in order to take an impartial view of the case in point, to analyze this passage. The causes to which this gentleman alludes are "from the effects of cold, and a variety of undeterminate causes;" and, in the first extract which I have given at the commencement of these observations, it will be seen that he also has in consideration the ulceration that affects the whole membranous lining of the mouth and pharynx: it is from the latter cause that he observes, "the ulceration is so extensive that it mostly produces the effects I have just mentioned;" and these effects are (it will be found on examining the above extract) ulceration extending from the throat along the eustachian tube and over the cavity of the tympanum, thus destroying its membranes, and also the escape of the bones from the tympanum:—"in these cases (he continues) little, if any thing, can be attained by the operation." Who would propose any measure to puncture that which does not exist?

The difficulty this writer found in explaining away the benefit of the operation in a practical case, which I have published, is manifest, when we consider how much he has deviated, in his mode of arguing, from the established laws of inflammation. Ulceration of the eustachian tube, either from scarlatina or cynanche tonsillaris, is indeed an exceedingly unfrequent occurrence, as may be inferred from the anatomical formation of these parts; for, when inflammation arises in the membrane lining this tube, a thickening of it is produced, and, from the original narrowness of the passage, a slight secretion of coagulable lymph closes it by adhesion; the effect of which is to arrest the progress of the inflammation in the tube. By the same rule, we continually find, on

opening the chest *post mortem*, adhesion between the pleura lining the chest and that covering the lungs; which is the result of inflammation occurring in contiguous surfaces. And from the same inflammatory action, producing an obliteration of the eustachian tubes, arose that case of deafness, after a violent attack of scarlatina, in which I punctured the membrana tympani with success: but they who are adverse to the operation wave the inflammatory process altogether, (which is the only cause, as far as our knowledge yet extends, that produces the species of deafness which can only be benefitted by an artificial opening in the membrana tympani,) and proceed to argue on an extremely rare process of ulceration, which, when it does occur, must completely destroy the organ of hearing; and then they arrive at the conclusion, that, in such cases, "little, if any thing, can be attained by the operation." Under these circumstances, we may readily infer in what manner "the practice is falling into considerable disrepute."

Fortunately, however, it is not sufficient to prove, because the operation has been unsuccessful in some cases, or that it should fail to restore the hearing under the management of one practitioner, "that the practice is altogether bad;" for it is possible, by a candid exposition of facts, to exhibit this mode of practice in a much more favourable light than some are wont to do. Lord Bacon observes, in "The Advancement of Learning," book ii.—"I take it, those things are to be held possible which may be done by some one, though not by every one; and which may be done by many, though not by any one."

Enfield; January 1819.

For the London Medical and Physical Journal.

Some Remarks on Dr. Bent's Cases of Varioloid Disease after Vaccination; by RICHARD PEW, M.D. of Sherborne, Dorset, Member of the Royal Medical and other Societies of Edinburgh.

THE long-agitated question, Whether vaccination be or be not a *sufficient* safeguard against all danger from small-pox infection? and, consequently, Whether vaccination should be preferred to variolation? are questions of such vital importance to the comfort and happiness of parents and guardians, and to the well-being of society at large, that every thing offered to the public respecting them ought to be as clear and as distinct as possible. I was led into these reflections by the paintings of two cases in your

valuable Journal, for December 1818, of an eruptive disease, which Dr. Bent, of Derby, *seems*, from the title of his paper, to set down as cases of *varioloid** disease *after vaccination*; although Joseph Pegg, from whom the first painting was taken, "said that he had been inoculated for cow-pox *without effect*," and seems (although we are not informed of the fact) never to have had the small-pox: whilst, in respect to the subject of the second picture, marked A. B., we are left in perfect ignorance whether the patient had ever been attempted to be vaccinated or variolated at all!

I do not mean to insinuate that Dr. Bent intended to deceive or to steal a march upon the public; on the contrary, it seems to be his wish to be strictly impartial: but the manner and the order in which his cases are related seem calculated to lead to confusion. I shall first endeavour, therefore, to put these cases into what appears to me a more distinct order, and then to make a few observations upon them. For the sake of brevity, I shall omit dates and other minutiæ, and attend to those essential points only in which, in my opinion, the gest of the arguments will turn.

Mary Miller, then, was taken into the hospital at Derby, with an eruptive disease upon her: she had, a few days before, been delivered of a child. This person had, it seems, "been at a house where two children were *supposed* to have just had the small-pox, one of whom died." (Unfortunately, no enquiry seems to have been made into the real nature of the disease of these children, nor from what source it was derived.)

Two children, who had taken infection from the bed on which Mary Miller was delivered, had an eruptive disease; which three or four of Dr. Bent's medical friends did *not hesitate* in *pronouncing* to be *chicken-pox!*

Could three or four medical men, with the aid, as we must suppose, of the Doctor himself, be mistaken in their unanimous opinion of its being chicken-pox?—the thing seems next to impossible; and, if they were *not mistaken*, could the disease of Mary Miller have been *small*-pox?—this also is impossible; and, if the disease of Mary Miller was *not small-pox*, could the disease of the children, from whom Mary Miller took the infection, have been small-pox?—this seems also to be impossible. Can we gather grapes off thorns, or figs off thistles? And, if the case of Mary Miller, and of the children from whom she took her disease, were

* This title was not applied to the paper in question by Dr. Bent: we used it as a convenient, if not a strictly appropriate, appellation.—Edit.

not cases of small-pox, could the diseases of Joseph Pegg, of the young gentleman who was a pupil of the hospital, or, in short, any other of the persons who took it from Mary Miller, have been cases of small-pox? Could Mary Miller communicate to others a disease she was not affected with herself?—this seems also to be impossible. And, if the case of Joseph Pegg, whose ghastly appearance seems to have been so accurately pourtrayed by Mr. Bennet, was not small-pox, could the case of the young lady, who had been *satisfactorily* vaccinated fourteen years before, have been small-pox?

When Mr. Bennet's drawing of Joseph Pegg was shown to the mother of this young lady, she exclaimed, "Dear me! how like it is!" conceiving it to be the picture of her own daughter. Unfortunately, we are not informed by Dr. Bent (as, I think, we ought to have been), from what source this young person took the infection; nor whether true, that unquestionable small-pox prevailed at the time in her father's house, in the town of Derby, or in any of the neighbouring villages, to which she might happen to have paid a visit.

By *satisfactory* vaccination, I take for granted, was meant that the punctured arm became affected with the well-known vaccine pustule; that there was a crimson halo or burr spreading for several inches round that pustule; and that, on the seventh or eighth evening after the operation, she had some degree of fever: for I do not myself consider a patient as *constitutionally* vaccinated, unless this last symptom takes place; although I know my friend Mr. Ring, and many other eminent vaccinators, are perfectly satisfied with the first two symptoms, whether there is any fever or not.

Now, here is a string of cases *assumed* to be varioloid, without a single proof, or even (I will add) the slightest probability, of any variolous taint at all.

I have no doubt but the surgeons were right in pronouncing the eruptive disease of the children, who took the infection from Mary Miller, to be chicken-pox; and, although at so great a distance from the field of battle, I have no doubt or hesitation in pronouncing the case of the young lady to be a case of chicken-pox, and for this plain reason:—constitutional vaccination is an infallible preventive of true small-pox; this lady was, I have no doubt, constitutionally vaccinated; *ergo*, she could not take true small-pox; and it therefore follows, *à fortiori*, that her disease was not true small-pox.

Dr. Bent, who seems naturally to be friendly to vaccination, is staggered by these cases; but, if he will sit down and recollect himself a little, he will perceive that there is no

ground for alarm. I am sorry to see such incorrectness of reasoning amongst medical men, whose logic should always approach to mathematical demonstration. But, I think, I can inform Dr. Bent how he may with certainty himself discover whether these cases were cases of chicken-pox or of small-pox.

Vaccination and variolation are the respective tests of each other: that is to say, inoculate a person, who has been constitutionally vaccinated, with small-pox matter, and he will not take true small-pox; inoculate a person, who has had the small-pox, with cow-pox matter, and he will not take the cow-pox. Let Mary Miller, then, Joseph Pegg, and the pupil at the hospital, (if they have not already been vaccinated or variolated,) be inoculated with vaccine or with small-pox matter; for, without one or the other, they are not secure against small-pox; and, if they take the small-pox, the disease they before had was chicken-pox; but, if they resist these inoculations, the disease may have been real small-pox. I conclude with observing, that, if the eruptive disease of these persons was not small-pox, it follows satisfactorily to my mind, as a necessary consequence, that none of the cases of eruptive disease, which prevailed in Derbyshire and Nottinghamshire, were cases of real small-pox; and I shall wait, therefore, with some degree of impatience for Dr. Bent's experiments.

P.S. In the years 1807 and 1808, there occurred in this town of Sherborne what I conceive to have been an eruptive disease; viz.—similar, if not identically the same, with that which has prevailed in Derbyshire and Nottinghamshire, which occasioned the same doubts and disputes which seem to have taken place there. Of this disease I published an account, in a letter to a friend in July 1818: this letter was spoken very well of in the Critical Review; but I do not recollect to have seen it noticed in any other Review or Journal, although I desired my bookseller to send it to your and all the Medical Journals; but I rather suspect he omitted to do so.*

This disease, like the Derbyshire eruption, affected indiscriminately those who had been vaccinated, and those who had neither been vaccinated nor variolated; but, at the time my book went to press, no case had come to my knowledge in which it attacked any person who had undergone the small-pox. Soon after my book was published, however, my friend, Mr. Gray, a surgeon of this town, desired me to

* This work was not transmitted to us.—Edit.

see a lad, who was nearly as much covered with papulous pustules as Joseph Pegg seems to have been, but he was not confined to his bed. This lad had been effectively inoculated for small-pox, seven years before, by the only medical anti-vaccinist in the town. This medical man was informed of the circumstance, and desired to see the lad; but he would not show, as the phrase is,—he would not look upon the patient. This occurrence led me to suspect (what indeed we had suspected before) that all the cases, except that of the lad mentioned in page 13 of my letter, were cases of chicken-pox only; but we chose to admit them all, for the sake of argument, to be cases of variola vaccinata, merely to guard against the nonsensical cavils of the anti-vaccinists. The reason why we did not see a case of this kind before, as well as the reason why we did not see more, may probably have been, that the proportion of persons vaccinated, as well as of those who had neither been vaccinated or inoculated for small-pox, might have been in the ratio of 100 to 1; scarcely any doubt having been before entertained that cow-pox was an infallible preventive of small-pox.

About the same time, some cases of real small-pox, after supposed real small-pox inoculation, occurred at Enmore Green, near to the neighbouring town of Shaftsbury, which occasioned me to make the following observations:—

How far the matter employed by Mr. Gray might, by possibility, without his knowledge, have been imperfect; how far we may, by possibility, have mistaken some other eruption for vaccinated small-pox; and how far the cases at Wareham, which are exactly in the same predicament, countenance or oppose such a supposition, I must leave to the conjectures of others: but the cases which occurred here were all so slight, as not materially, in my opinion, to affect the argument, whether small-pox or cow-pox inoculation should be preferred; but that mistakes and accidents are liable to happen with respect to small-pox, as well as to cow-pox inoculations, the following facts will sufficiently testify.

Mr. Adams, bookseller, at Shaftsbury, having mentioned to me that many persons at Enmore Green (a sort of suburb to Shaftsbury) had taken the real small-pox after supposed real small-pox inoculation, I desired him to collect the particulars, and send them to me; and in a few days he sent me the following letter:—

"Sir,

"Agreeably to your request, I have been at Enmore Green, where I found nine persons, [I learned afterwards that there were nearly twenty in the whole,] who had been inoculated for the

small-pox by the late Mr. John White, about ten or eleven years ago, and were supposed to have had it *very fine*, and who have lately taken the small-pox in the natural way, and have had it *very severely*. I am, &c. &c.

"*Shaston; July* 16, 1808. T. ADAMS."

Now, the people at Enmore Green, as well as at Shaftsbury, firmly believed that these were cases of real small-pox after real small-pox, (of which I might have taken advantage, if I had been so disposed, as an argument against small-pox inoculation); but it requires very little penetration to discover that Mr. White had mistaken, as has frequently been done, a case of chicken-pox for a case of small-pox; had taken his matter from thence; and had communicated chicken-pox instead of small-pox to his patients.

These cases will, I think, convince Dr. Bent, that the great and immortal Sydenham, the respectable Dr. Morton, and Dr. Bent himself, were completely mistaken when they maintained small-pox and chicken-pox to be mere modifications of the same disease; since inoculation for small-pox does not prevent the infection of chicken-pox, nor does inoculation for chicken-pox (when mistakenly used) prevent the infection of small-pox;—and so much for the Derbyshire varioloid disease.

At the moment I was finishing the above, the Monthly Review for December 1818, and the Star paper of January 2nd, 1819, happened, by an extraordinary coincidence, to be lying on the table of my study; and, having finished what I intended to do, I took up the former, and, in the first article I perused, I met with the following paragraph:—

"The population of Ceylon has, of late, been greatly on the increase, [mark the reason assigned,] in consequence of the general introduction of vaccination"—*View of the Agricultural, Commercial, and Financial Interests of Ceylon;* by Anthony Bertolacci, Esq. 1818.

Having done with the Review, I took up the Star, and there I read the following advertisement:—

"An Account of the Small-Pox, as it appeared after Vaccination; by Alexander Monro, M. D. Including, among many cases, three which occurred in the author's own family."

Now, it has been shown above, on the authority of Mr. Bertolacci, that the population of Ceylon has been greatly increased by the general introduction of vaccination; and the different insurance offices will convince us that a similar increase has taken place in all countries into which vaccination has been generally introduced. Vaccination, therefore, is of great advantage to the population of the world at large.

The cases referred to by Professor Monro, admitting them for the moment to have been cases of real small pox after constitutional vaccination, must, no doubt, have been inconvenient (for it does not seem as if any of them had proved fatal) to Dr. Monro's family, as well as to the other families concerned: but of what sort of consequence are these cases, when compared to the welfare of the world at large?—they are but as a drop in the ocean. But, if these very cases should hereafter turn out (as is very probable) not to have been cases of real small-pox after constitutional vaccination, it is not merely nonsensical and ridiculous to trumpet them forth to the public, but it is, in my judgment, highly criminal to stir up the fears and resentments of the uninformed multitude against a practice which has done, is doing, and (if let alone) will continue to do, more in preserving the lives of the human species than all the lectures of all the professors, and all the practice of all the physicians, and surgeons, and apothecaries, in the universe, have done, are doing, or will ever do, as long as the world shall endure.

The beneficial or the prejudicial tendency of any grand measure or general practice, ought not to be estimated from its effect upon a particular individual, a particular family, or even upon many families, but from its general good or injurious effects upon large communities, or upon the great mass of mankind.

Notwithstanding that I am a decided advocate for vaccination, from a thorough conviction that nine-tenths, or rather that ninety-nine hundredths, of its reputed failures are cases which have arisen from imperfect vaccinations, or of cases taken for small-pox which were merely cases of chicken-pox; yet I am not amongst the number of those who would enforce the practice of vaccination, or prohibit the practice of small-pox inoculation, by Act of Parliament, because this would be contrary to Magna Charta, the Bill of Rights, and the other unalienable rights and privileges of Englishmen, who have the constitutional right of risking the lives of themselves, their children, and their neighbours, without let, hindrance, or molestation, whenever they think proper: but I would encourage vaccination by my advice, and by my example; and I would check and discourage inoculation for small-pox, not only by my advice and my example, but also by some salutary and constitutional restraints. If, then, it be lawful and constitutional to oblige an Englishman to take out a licence for killing game, it may perhaps, by analogy of law, be legal and constitutional to oblige an Englishman to take out a licence for killing his

fellow-creatures. I would not, however, in this case recommend an annual licence, because this might be unequal in its pressure; but a licence, after the nature of a permit, upon a five-guinea stamp, for each individual offence; which, perhaps, might run somewhat in the following manner:—

"Permit Nicholas Noodle, of Fool's-alley, in the county of Middlesex, surgeon, to inoculate, with small-pox virus, Solomon, the son (or the only son, as the case might be,) of Solomon Soft-pate, esq. of Goatham Hall, in the same county."—Or,

"Permit Thomas Clutterbuck, of the city of Chester, surgeon and apothecary, to inoculate, with small-pox virus, Polly Higginbotham, of the same place, spinster."

"And if any physician, surgeon, apothecary, man or woman midwife, or other person pretending to skill in the art or science of physic, shall presume to inoculate any individual, without having first taken out such permit, he, she, or they, shall each and every of them forfeit and pay the sum of fifty pounds; one half to go to the informer, and the other moiety or half-part to the poor of the parish in which the offence shall be committed."

I have not had leisure to study, with due attention, the cases reported as *varioloid** after vaccination, by Dr. Thomson, of Edinburgh, and Mr. Hennen; but now that the cases which occurred at Ringwood, at Cambridge, at Wareham, at Sherborne, at Derby, at Nottingham, &c. &c. (which were all looked upon as varioloid,) have been proved, by competent judges, to have been cases of severe chicken-pox, I cannot help thinking, with all becoming deference to these gentlemen, that the disease which prevailed in the city and castle at Edinburgh were also cases of real but severe chicken-pox. Indeed, the cases at Lanark Mills, related by Dr. Thomson, appear to me to have been unquestionably cases of chicken-pox, and that for the following reasons:—as vaccination and variolation are universally admitted to be general preventives, at least, of future small-pox, the great proportion of those who had the disease after vaccination (like Mr. White's cases of small-pox after supposed small-pox, above mentioned,) proves too much; and, whatever proves too much, logically speaking, proves nothing.

Besides, there were four cases at these mills of this eruptive disease after *small-pox inoculation!* What, are the laws of nature reversed for the sole purpose of puzzling and perplexing us poor helpless mortals? Has small-pox, as

* This term was used by Dr. Thomson.—EDIT.

well as cow-pox, lost its prophylactic power? The thing cannot be; there must be a mistake somewhere: either the vaccinations or the variolations must have been all ineffective, or the disease which occurred could not have been variolous or varioloid.

"*Utrum horum mavis accipe.*"

Dr. Monro's book I have not seen, nor is it probable I ever shall see it. My mind has been long made up as to the unquestionable superior power of vaccination over even variolation, as a preventive of all danger from small-pox infection; and I have not the shadow of a doubt but the cases of Dr. Monro will speedily follow all the other supposed cases of small-pox after cow-pox to "the tomb of all the Capulets!"

"*Finis coronat opus.*"

"At Mr. Owen's mills," says Dr. Thomson, "through the obliging attention of Mr. Gibson, who has the medical charge there, I had an opportunity of seeing *one hundred and eighteen cases* [mark, one hundred and eighteen cases!] of young persons affected with this epidemic [*varioloid* disease after *vaccination*]. In its general appearance, the disease bore a very striking resemblance to that which I had occasion to see at Edinburgh; though, upon the whole, it appeared to me to have a character considerably milder. *Four only* of those affected with it had previously passed through *small-pox!* [so that Dr. Monro's children would not have been at all more secure against this disease, if they had been inoculated for *small*-pox instead of *cow*-pox]. In two of the cases after small-pox the disease was mild, but in the other two severe, [here is another proof that variolation is not a greater safeguard than vaccination]. Eighty-two had this disease after having passed through *cow-pox*. In a few of these, it might be said to be severe; but, in by far the greater number, it was extremely mild, and exhibited the most convincing and agreeable proofs of the efficacy of cow-pox in modifying small-pox."

So much, then, for the Scotch cases. I will add one fact of a different kind; but that one comprehending or representing many thousands of others, of the permanent effect of cow pox in preventing small-pox.

About sixty years ago (which was long before vaccination was generally, if at all, known,) a servant of my father's, by name David Jervis, had been twice inoculated, in immediate succession, for the small-pox, without effect, by Mr. Clark, of Ansford in Somersetshire, who was at that time the most celebrated inoculator in the west of England, and

who had not long before been in partnership with Mr. (afterwards the late Baron) Dimsdale, at Hertford. Mr. Clark was about to inoculate this man a third time; but of a sudden he said to him, "Pray, my friend, did you ever have the cow-pox?" The man replied, that he had it several years before. Mr. Clark, who was very quick in his manner, threw aside his lancet, and exclaimed, "G— d——, why didn't you tell me that before?" As if he had said, from his own immense experience, "I thought every fool knew that those who had once had the cow-pox could never take the small-pox."

I thought I had done; but, having delayed sending this paper longer than I intended, I have taken the opportunity of perusing with greater attention the cases related by Dr. Thomson and Mr. Hennen; and I must confess that they all confirm me still more in the opinion that I have delivered. The disease attacked indiscriminately those who had been vaccinated, those who had undergone the small-pox! and those who had neither undergone small-pox nor cow-pox. What is the natural inference? Surely not that the eruption was a varioloid eruption, after or produced by vaccination; for how could a non-eruptive disease produce an eruptive one?—not a varioloid disease, after or produced by small-pox inoculation; for how could the minimum or diminutive of small-pox produce effects which the maximum or augmentative of small-pox (that is to say, full malignant small-pox,) could not produce!—namely, infect those who had been before infected with real small-pox virus, and gone constitutionally through that disease? The thing is not only contrary to every analogy, but seems to be almost impossible.

What, then, is this eruptive disease?—Why, it is either a severe species of chicken-pox, or it is a disease, *sui generis*, long lost, but (as the miners speak) come again to day. And, after all, is it by any means clear that this disease has always, or even generally, prevailed after vaccination? I think not; unless that vaccination has been contemporaneously accompanied by the general prevalent small-pox. Vaccination, unlike small-pox, is practised day by day and hour by hour, as it were; because no one is afraid to vaccinate infants and persons of the most tender constitutions, nor of offending or injuring their neighbours by so doing: yet no varioloid disease ever follows these individual or isolated vaccinations; or, if they do, none such have come to my knowledge. But, after the general prevalence of small-pox, which is the ordinary cause of a general vaccination, the case is widely different. I have myself seen many instances of chicken-pox, as severe as that of Joseph Pegg,

long before vaccination was generally known, or perhaps even thought of,—I mean so long ago as the year 1778; concerning which great disputes arose at the time, whether the complaint was small-pox or chicken-pox, insomuch that various practitioners inoculated with matter taken from one of the patients I allude to, under the persuasion that it was a case of actual small-pox; but to the misfortune of their patients; some of whom soon after took the real small-pox naturally, and some others were inoculated. These cases, in all, might have amounted to twenty or thirty, but only two or three were of the severe kind above spoken of; and all of these I now allude to occurred in the year next after the general prevalence of small-pox, but whether they had any connexion with real small-pox as their cause or their modification, I confess myself unable to unravel; but the eruption was so much like small-pox, that nothing but the greater milkiness of the pustules, their want of the pyramidal form, of the crimson base, their more speedy drying-off, and the absence of the variolous fœtor, enabled me to pronounce with confidence that the disease was not small-pox: and, at all events, the eruptive disease which occurred at Edinburgh, at Derby, perhaps at Montpellier, and in many other places abroad and at home, may as justly be called a varioloid disease after small-pox as a varioloid disease after cow-pox; so that the reputation of small-pox inoculation, as a preventive of small-pox, obtains no additional advantage over vaccination by the occurrence of these cases.

"*Parturiunt montes et mus nascitur.*"

The reason why so many more instances of this eruptive disease occurred after vaccination than after variolation, and which seems to be the sole foundation of the present controversy, I take (as I have hinted before) to be this:—the practice of vaccination, until this ill-founded—and I hope, for the benefit and honour of human nature, temporary—slur upon its character took place, had become almost universal, and was opposed only by a few straggling individuals, who might be called *the wild men of the woods!* and Dr. Thomson's cases (which, by the bye, considering the population of Edinburgh, 122,954 persons, are very few—only 72,) do, in a most extraordinary manner, confirm this supposition: for, out of the 72 eruptive cases, 37 of the patients had never been vaccinated or variolated, 27 had passed through cow-pox. Now, 27 is rather less than one-third of 72, the whole number; and 8, the number who had passed through small-pox, is rather less than one-third of 27, the number who had passed through cow-pox: the proportions, therefore, between the vaccine failures and the variolous fail-

ures (supposing, for the moment, that they were failures at all,) are very exactly preserved; and the prophylactic power of vaccination is, according to these cases, to the full as great as the prophylactic power of variolation, which was the question to be investigated. But it is still more remarkable how nearly the aggregate number of those who had been vaccinated and variolated corresponds with those who had neither been vaccinated nor variolated: 35, the number so guarded, being, all but *half a patient*, the moiety of 72, the whole number affected. And what does this go to prove?—Why, to my mind, it goes to prove that there was *no small-pox infection to prevent*, and that every one of these cases, both at home and abroad, were no other than cases of *chicken-pox*.

If, after all that has been said by others, as well as by myself, there should still be any medical man blind and foolish enough to prefer, and any parents weak enough to permit, variolation to be practised on their children, I can only say

"*Si populus vult decipi decipiatur.*"

But I will declare it as my settled opinion, that, if all parents would have their children vaccinated in their first year, then that horrible pestilence, the small-pox, would in two short years be entirely driven from our land:—"a consummation devoutly to be wished."

More new light still.—During the time I was writing the above, a very respectable and well-educated female came to consult me: she has for thirty-five years past kept a day-school in this town, and has had during all that time, upon an average, more than forty scholars, most of them under ten years of age; so that, multiplying 35 by 40, she has had about 1400 scholars under her tuition. She is one of those persons who are generally called motherly women, and she has acquired the knack, either from love or fear, according to their respective dispositions, of commanding the obedience of the children; and therefore, when any of her little pupils are unwell, her attendance is almost always requested, either to give her advice or to prevail on the children to take their medicines. It occurred to me to ask this person whether she ever recollected to have seen a disease called the swine-pox, as a disease distinguishable from chicken-pox?—she said, she did not recollect to have seen any such disease; "but," says she, "I have known many instances of children having the chicken-pox twice; and at one of those times the disease has been always very severe, and so much like small-pox, that it was very difficult to distinguish it from small-pox." Upon my asking her if she could recollect whether the severe

disease or the mild disease regularly occurred first? she said, she could not recollect any difference; but she was inclined to think that one occurred first as frequently as the other, and that it was only a few, amongst a considerable number of mild cases, which put on this severe form.

I am really sorry to bother the public with so much of the *crambe recocta* of small-pox and cow-pox inoculation; but I confess that I am extremely anxious, by every fair and legitimate argument, to establish a practice which appears to me so highly beneficial and important to mankind.

Sherborne; Feb. 1819.

For the London Medical and Physical Journal.

Observations on Abdominal Pressure in Obstetrical Practice; by W. Marson, Esq. Member of the Royal College of Surgeons.

I HAVE read with much attention your report of Dr. Clarke's Registry, No. 237, p. 401; and also the paper of Dr. Hamilton, No. 240, p. 121, on the importance of abdominal pressure in obstetrical practice; and with the greater pleasure, because I have so amply treated on the subject myself, in your Journal, fifteen years since, (vol. x. p. 433, and vol. xi. p. 328.) Dr. Hamilton, your correspondent, by referring to these papers, will give me credit for having been more illustrative on abdominal pressure than himself,—to the junior practitioner in particular; and he may not think his own time unprofitably spent in the perusal of them. It is true I have not carried abdominal pressure to the extent "of pursuing the fundus uteri in its contraction until the fœtus be expelled," believing that I have given it all the latitude I ought to do; and I mean every respect to Dr. Clarke and Dr. Hamilton, though I declare myself not very sanguine in the use of the pressure they speak of, nor am I an advocate for abdominal pressure by towels or bandages, which Dr. Hamilton alludes to.

I shall wave further remark, as the only motive of this paper is to put in a full view the importance of abdominal pressure in obstetrical practice, and to establish my claim of first bringing into notice what has recently been, I will say, supported by Dr. Clarke and Dr. Hamilton.

Worksop, Notts; Feb. 24, 1819.

For the London Medical and Physical Journal.

Observations on particular Modes of Treatment recommended to assist Nature in her Efforts during Parturition; by F. T. H.

ANY interposition of art in the operations of nature under parturition must appear censurable, when urged as a general maxim to be acted upon in those cases which the united testimony of all ages has shown do not require any artificial aid whatever: by such cases I mean that immense majority of labours which the powers of nature alone are known to be fully adequate to complete, with the most perfect safety both to the mother and child. That a great deal has been done in every age to assist nature in her efforts during parturition, is well known; nor is it to be wondered at that, at the present day, in countries where fanaticism and ignorance hold the place of reason and philosophy, many absurd practices still prevail in the management of this important function. It is, however, the object of the present paper to maintain, in opposition to the practice recommended by the late Dr. Osborne, but at the same time with the greatest respect for that gentleman's high attainments, that the mode of interfering in natural labours, by *retarding* the birth of the child, is as unnecessary and as objectionable as *accelerating* the birth would be: first, because labour is in itself a natural healthy function, and requires no more artificial aid than the function of respiration does; secondly, because retarding the delivery can no more justly be said to prevent those accidents which now and then occur after the birth of the child, than the accelerating the delivery can be said not to be the cause of them.

With regard to the first objection, on the ground of labour being in itself a natural healthy function, and consequently requiring no assistance from art, little need be said, when it is recollected how many women have had their labours safely concluded without the aid of any attendant. In many of such cases, no doubt, the uterus had acted with such vigour as would have inclined a person of Dr. Osborne's opinion to have retarded the birth of the child, to have secured a more speedy and safe expulsion of the placenta. But I appeal to those gentlemen who have frequently come into the lying-in room after the child has been born, how often have they found the placenta lying in the vagina, and how seldom any disagreeable symptom from want of contraction of the uterus? It may, I allow, occasionally have occurred that, in women of irritable habits of body, who

have suddenly been delivered of children, and no attendant near them, that, from anxiety and apprehension of danger, the uterus has either ceased to act altogether, or acted so irregularly, that the placenta has been retained: still such want of action, or irregularity of it, cannot fairly be attributable to the quick passage of the child through the os externum, when it is so well known, to every practitioner in midwifery, the powerful influence which passions of the mind exert over the action of the uterus.

With respect to the second objection to interfering in natural labour, by retarding delivery with a view to obviate the accidents that sometimes occur after the birth of the child, I have stated it to be as unjust to expect such a mode of practice to answer the end intended, as it would be to deny the possibility of the same accidents being produced by the opposite treatment. Now, it must be obvious that, either by forcibly dilating the external parts to facilitate the passage of the head through them, or after the head is born, dragging the body hastily through the os externum, the remainder of the labour,—viz. the expulsion of the placenta and subsequent contraction of the uterus,—may be rendered extremely tedious: for the external parts, being irritated by efforts used to dilate them, will sympathetically affect the uterus; and, if the recurrence of pain should not be entirely prevented, it will, in all probability, be of that kind which accompanies that partial and irregular contraction of the muscular fibres, known by the name of the hour-glass contraction of the uterus. The dragging the body hastily through the os externum after the exit of the head, will be likely to produce the same inconveniences, and even danger, where there is any disposition to flooding. But, though this is the opposite mode of conducting a natural labour to that recommended by Dr. Osborne, and now employed by many men of eminence, and which I allow to be not only erroneous but even sometimes dangerous, still I do not see that, on the present occasion, we can rationally found our practice on the maxim of Hippocrates, that "Τὰ ἐναντία τῶν ἐναντίων ἐστὶν ἰήματα;" and, consequently, believe that the retarding the birth must be right. On the contrary, I contend that the retarding the birth does often fail to secure a speedy contraction of the uterus, and is even sometimes productive of the very inconveniences which I have above stated precipitancy of conduct may give rise to. And can such an effect be wondered at, when it is considered that, by retarding the birth, we are opposing an unnatural resistance in the room of a natural one, which has been happily overcome, and hereby stimulating the uterus to fruitless and fatiguing

efforts, which, if not carried to such extent as ultimately to impair the powers of the uterus, will, no doubt, if the efforts made to overcome the unnatural resistance be violent, dispose it to inflammation and severe after-pains. In cases even where the uterus has shown imperfect action, I do not see how offering resistance to the passage of the child can secure a more vigorous contraction after it is allowed to be expelled.

Dr. Clarke, of Dublin, has been in the habit of retarding the delivery in cases of imperfect action of the uterus; but he has also conjoined another sort of practice with this,—that of laying the hand upon the abdomen, and following the uterus in its contractions until the child is expelled. It is to the last practice, that of using the hand as a support to the uterus in these cases of weak action, that I attribute Dr. Clarke's success; for, as muscles evidently have their power increased by giving support to them whilst in action,—as, for instance, in the extremities, where the muscles are bound down and supported by strong fasciæ,—so this analogous support of the hand will enable the uterus to act with increased power. Still, provided we are able in this way to increase the powers of action in the uterus, I believe that no good effect can reasonably be expected from increasing the resistance to the child's birth.

The object of what has been stated above, is to endeavour to prevent the interposition of art in ordinary natural labour, and to recommend that, in those cases where we think it necessary to do something to increase the powers of the parts concerned in parturition, that we imitate, as far as possible, the means which we see nature herself employ in other parts of the body to attain the same end,—viz. an increase of the power of action. I shall conclude by observing, that it never can be necessary or justifiable, in those who ought merely to be the ministers of nature, to presume to ordain the moment when she should complete her office.

London; Feb. 10, 1819.

For the London Medical and Physical Journal.

A Case of singular Disease of the Cranium; by Wm. M'Turk, Esq.

IN the spring of 1817, a gentleman began to feel pains in his head, more particularly the back part of it, which were supposed to be connected with the digestive functions, then considerably impaired. He took some medicines, which restored the tone of the stomach, but had no effect in reliev-

ing the head. For some months following he did not take any medicine; the pain varying in degree, but nearly incessant. In the summer the symptoms became aggravated, his sight and hearing being considerably impaired. His professional duties were of a sedentary nature, which, with some domestic circumstances at that time operating considerably on his mind, induced him to consider his complaints *nervous*: he, therefore, determined to make trial of Peruvian bark; which was taken for some time without benefit. The pain now became very distressing, yet varied much: sometimes he was nearly free from it, at others it was most intense and his sight nearly lost. He always found that any jolting of the body, in proportion to its violence, increased the pain; so that he avoided, as much as possible, walking on rough uneven roads or down declivities, and always preserved an even pace, carefully guarding against tripping in his progress. In the month of December he had fifteen ounces of blood taken from the back of his neck by cupping, but from which he obtained no mitigation of his symptoms. Since that time up to the beginning of February 1818, when he consulted me, I believe he had not been making use of any means for relief. From some circumstances connected with his history prior to these dates, it was judged advisable that he should take the pilula hydrargyri with decoctum sarsaparillæ; but, at his own request, this was postponed till nearer the spring, from a persuasion that he had that, that season was more favourable for taking medicine. In a few weeks afterwards, however, he requested I would examine his head. I did so, and perceived on the scalp, at equal distances from the coronal and lambdoidal sutures, and directly over the sagittal suture, a tumor about the size of an egg, evidently containing matter. To this a poultice was applied, and in a day or two a small orifice was made, from which issued a considerable discharge of pus, of thick consistence, and peculiarly shining and pearly appearance. He experienced much relief; and in the morning, when I visited him, he was quite free from pain, and had slept the whole night. A large quantity of matter had been evacuated. I proceeded to dress the place; but was greatly surprised by observing a fragment of cerebral matter, larger than a hazel-nut, accompanied by the pia mater, plugging up the orifice which the lancet had made. In the evening of the same day, Dr. Thompson met me in consultation, when the part was examined through a microscope. The ramification of the vessels on the membrane could be most distinctly traced, and the structure of the portion of brain clearly distinguished. It was also discovered that the sagittal su-

ture, and the coronal partially, had given way, and that, by pressure with the hands on each side the parietal bones (separated apparently about the third of an inch), they could be made to approach and recede, as the force was applied; and, by the application of pressure in this way, it was most satisfactorily demonstrated that the matter was forced out from within the skull. It may not be improper to remark also, that the cranium appeared considerably misshaped, very closely resembling the head of a hydrocephalic child. The serrated edges of the bones could be very distinctly felt with the probe. The orifice was cautiously enlarged, and the matter which was effused under the scalp, and had denuded the bone, was gently pressed out. Just below the coronal suture, a little to the right side, another fluctuating tumor appeared, smaller than the former, and which had no communication with it, external to the skull, that could be traced with the probe, yet pressure upon this caused matter to exude abundantly from the upper one.

Not to be tedious in the detail of symptoms which varied but little, it will be sufficient to state that the discharge continued in great quantity for eight or ten days; from which time it gradually lessened, the bones regaining their natural situation, the incisions granulating; and, in three weeks from the opening of the tumors, the patient was perfectly well, with the restoration both of his sight and hearing.

I shall make no comments, well aware how very unsatisfactory must be all attempts to account for this extraordinary, and perhaps unique, case. I can only express my astonishment that disease so extensive in an organ, whose functions are considered so susceptible of derangement and are so important in the animal economy, should not have produced insensibility and death. I have purposely abstained from saying any thing of the treatment, believing that it could add nothing to the value of the communication, as it consisted merely in what the passing symptoms obviously suggested. I may add that, a few months after the date of his recovery, he took, for a stomachic affection, about a dozen of the pilulæ hydrarg. They produced an unpleasant effect; the cicatrices of the wounds becoming the seat of considerable irritation, which terminated in a small superficial formation of matter; and, the pills being desisted from, no further mischief ensued. Since that time he has taken no medicine whatever; and I am happy to say he has enjoyed an invariably good state of health up to the present time, being nearly a year since the appearance of the swelling on his head.

Scarborough; Feb. 6, 1819.

COLLECTANEA MEDICA,

CONSISTING OF

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

RELATING TO THE

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

Quicquid agunt medici,
nostri farrago libelli.

Medical Knowledge of the People of the Tonga Islands.

(Continued from page 214.)

THE most common surgical operation among the Tongese is what they call *tafa*, which is topical blood-letting, and is performed by making, with a shell, incisions in the skin to the extent of about half an inch in various parts of the body, particularly in the lumbar region and extremities, for the relief of pain, lassitude, &c.; also for inflamed tumors, they never fail to promote a flow of blood from the part. By the same means they open abscesses, and press out the purulent matter. In cases of hard indolent tumors, they either apply ignited tapa or hot bread-fruit repeatedly, so as to blister the part, and ultimately to produce a purulent surface. Ill conditioned ulcers, particularly in those persons whose constitution disposes to such things, are scarified by shells; those that seem disposed to heal are allowed to take their course without any application.

In cases of sprains, the affected part is rubbed with a mixture of oil and water, the friction being always continued in one direction,—that is to say, from the smaller towards the larger branches of the vessels. Friction, with the dry hand, is also often used in similar and other cases, for the purpose of relieving pain.

In respect to inflammations of the eyes, which sometimes rise to a very great height, attended frequently with a considerable purulent discharge, they frequently have recourse to scarification by the application of a particular kind of grass,—the minute spicula with which it is replete dividing the inflamed vessels, as it is moved upon the tunica adnata. To assist in reducing ophthalmic inflammations, they also drop into the eye an acid vegetable juice, and sometimes another of a bitter quality; the first is called *vi*, the latter *bawlo*. The species of ophthalmia to which they are subject, though sometimes lingering, is stated scarcely ever to have produced serious consequences, and is not considered contagious. Mr. Mariner neither saw nor heard but of one man who had lost his sight by disease.

In cases of gun-shot wounds, their main object is to lay the wound open, if it can be done with safety in respect to the larger blood vessels and tendons; not only for the extraction of the ball, if it should still remain, but for the purpose of converting a fistulous into an open wound, that it may thereby heal sooner and better. If they have to cut down near larger vessels, they use bamboo in preference to the shell; the same near tendons, that there may be less chance of injuring them. They always make incisions nearly in the course of the muscles, or at least parallel with the limb.

The amputation of a limb is an operation very seldom performed; nevertheless, it has been done in at least twelve individuals. Mr. Mariner seeing one day a man without an arm, curiosity led him to enquire how it happened, and found that he had been one of the twelve principal cooks of Toogoo Ahoo, the tyrant of Tonga, and had submitted to the amputation of his left arm, under the circumstances related in vol. i. p. 76. The mode in which this operation was performed was similar to that of *tootoonima*, described vol. ii. p. 222; only that a large heavy axe was used for the purpose. The bleeding was not so profuse as might be imagined; owing, no doubt, to the bluntness of the instrument and violence of the blow. This stump appeared to Mr. Mariner to be a very good one; the arm was taken off about two inches above the elbow. Ten were stated to have done very well; of the remaining two, one died of excessive hæmorrhage, and the other of mortification. There was also a man, living at the island of Vavaoo, who had lost a leg in consequence of the bite of a shark, which is not a very uncommon accident; but there was something unusual in this man's particular case: his leg was not bitten off, but the flesh was almost completely torn away from about five inches below the knee down to the foot, leaving the tibia and fibula greatly exposed, and the foot much mangled. He was one of those who chose to perform his own operations; with persevering industry, therefore, he sawed nearly through the two bones with a shell, renewing his tedious and painful task every day till he had nearly accomplished it, and then completed the separation by a sudden blow with a stone! The stump never healed. Mr. Mariner had this account from the man himself and many others.

Téfe, or the operation of circumcision, is thus performed:—a narrow slip of wood, of a convenient size, being wrapped round with gnatoo, is introduced under the præputium, along the back of which a longitudinal incision is then made to the extent of about half an inch, either with bamboo or shell (the latter is preferred): this incision is carried through the outer fold, and the beginning of the inner fold, the remainder of the latter being afterwards torn open with the fingers; the end of the penis is then wrapped up in the leaf of a tree called gnatái, and is secured with a bandage: the boy is not allowed to bathe for three days. The leaf is renewed once or twice a day. At the Fiji islands, this operation is per-

formed by amputating a portion of the præputium, according to the Jewish rite.

They are very subject to scrofulous indurations, glandular enlargements, and ulcers: they call the disease *cahi:* the parts affected are the groins, axillæ, and neck; though many other parts of the body are also liable to ulcers, which they call *palla.* These diseases sometimes run on to such an extent, and assume such appearances, that we believe some travellers have mistaken them for lues venerea. It is certain that some individuals affected with palla have been obliged to submit to the loss of a nose, the cartilagenous and softer parts of that organ becoming completely destroyed: it must be also mentioned, at the same time, that the natives are subject to gonorrhœal discharges, attended with ardor urinæ. All these circumstances appear very equivocal: but Mr. Mariner has every reason to believe that the venereal disease did not exist under any form, either at the Hapai islands or Vavaoo, during the time that he was there; although, to his certain knowledge, three of the survivors of the Port-au-Prince's crew had gonorrhœas at the time the ship was taken; one of whom had brought it from England, and the other two had contracted it at the Sandwich islands. Several others of the ship's company had also venereal affections; but they fell in the general massacre on-board. In the first place we must observe, in respect to those labouring under the diseases called cahi and palla, that the complaints are either not venereal, or that the venereal disease subsides in them, and the constitution cures itself spontaneously. 2dly, That the organs of generation are never affected previously to the more general disease coming on. 3dly, That these diseases are not known to be, or believed to be, contracted by sexual intercourse. 4thly, That though these diseases, in some constitutions, produce fatal consequences, yet very frequently the appetite and strength, and fullness of flesh, remain much the same as if no disease existed; though this happens in palla more than in cahi. In respect to the gonorrhœas to which they are subject, they are for the most part very mild in their symptoms, and get well in a few days; besides which, they are not capable of being communicated between the sexes,—or, at least, this is not known or believed to be the case. In regard to the three men of the Port-au-Prince's crew, they got well without exactly knowing when or how; for the consternation occasioned by the capture of the ship and the destruction of their countrymen, and the alarm and state of anxiety in which they were for at least two or three days, had produced such a change in the constitution, or at least in the disease, that it had actually got well before they were aware of it. Mr. Mariner enquired among some of the older men, if they had ever seen or heard of such a disease as syphilis or venereal gonorrhœa, (describing the general character of it, and how it was communicated;) and learnt that a woman, a native of one of the Hapai islands, having had connexion with one of the men belong-

ing to a French ship, became on fire (as they expressed it), and died afterwards in a very bad state: and this was all that he learned respecting what might reasonably be supposed to be true syphilis. Palla frequently gets well spontaneously; but the remedies commonly used are scarification of the ulcered surface, powder of turmeric sprinkled over it, and sometimes a bitter vegetable juice dropped on it.

They have among them another kind of ulcerous disease, which they call *tona*, very distinct from the two last described, children being for the most part subject to it; and it is one of those diseases which only occur once during a person's life. The patient is first seized with general languor and debility, attended with loss of appetite: in a few days an eruption appears in different parts of the body, but particularly in the corners of the mouth, axillæ, groins, parts of generation, and anus; the pustules at first are exceedingly small, but at length increase to about half an inch in diameter; fungous excrescences grow out of them, exhibiting a granulated surface, and discharging a viscous fluid, which concretes round the edges. These pustules come also upon the soles of the feet, and increase to a considerable size, giving very great pain. Mr. Mariner is not acquainted with the state of the pulse, &c. The disease generally lasts several months, and sometimes a couple of years. From the symptoms thus far described, there is not much doubt about its resemblance to what is called the *yaws:* the remedies they use for it are a certain bitter juice dropped into the ulcers, and rubbing off the fungous excrescences with cocoa-nut husk dipped in sea-water. They are subject also to a pustulous eruption, chiefly confined to the feet, but which sometimes affects the hands. It usually appears between the toes, and has in its external character a strong resemblance to psora, and itches very much: it appears in the form of small pustules with whitish heads, which, when rubbed off, generally discharge a watery fluid. It is supposed to arise from walking in clayey places without the opportunity of washing the feet afterwards: it is not thought to be contagious; it usually lasts about four or five days. The name they give it is *gnówooa*. They use no remedy.

They are also subject to a disease called *fooa:* but, if we describe the symptoms of elephantiasis, we shall have related with tolerable accuracy the history of this disorder. Labillardiere notices the disease, and calls it elephantiasis. They use no remedy for it.

The disease called *momóco* usually lasts from four to seven months: in the latter stages it somewhat resembles phthisis. It comes on with occasional chilliness, loss of appetite, lowness of spirits, wasting of the flesh: shortly succeed swellings in the groin and axillæ, general debility, paleness of the lips. As the disease advances, the patient stoops very much, experiences pains in the chest, and across the shoulders; sometimes, but not often, a cough, and expectoration now supervene, the debility and emaciation become extreme, and death relieves the patient from his

sufferings. These are all the symptoms which Mr. Mariner can speak of with certainty. They use no physicial remedies.

Féke-féke appears to be a sort of mild irregular intermittent: the paroxysm usually lasts from two to eight hours, and consists of a cold and a hot stage; but is seldom succeeded by perspiration. The returns of the paroxysm are very uncertain: sometimes two, at other times three, four, five, or more days intervene. The patient is sometimes perfectly well for a month, and then his disorder returns.

In regard to diseases properly belonging to females, Mr. Mariner has very little to communicate. The women are in general tolerably healthy. During the catamenia, they anoint themselves all over with a mixture of oil and turmeric, to avoid catching cold; and they do the same after lying-in; on which occasions women always assist, to the perfect exclusion of the other sex. Respecting the circumstances of parturition, and the separation of the child, these things are kept a profound secret from the men. The men also occasionally use this mixture of turmeric and oil in time of war, when the weather is wet, to prevent them from feeling chilly, for at that time they have scarcely any dress. Mr. Mariner on similar occasions has anointed himself all over with it, and found it to have the desired effect.

On looking over the *Dictionnaire des Sciences Medicales*, for the purpose of selecting from it such brief disquisitions as are appropriate for our *Collectanea*, our attention was arrested by an article entitled *Cas Rares*, written by M. Fournier. Rare and curious cases, which have not furnished matter for any immediate induction of utility to physiology or the practice of medicine, have generally been neglected in the records of this science, or only noticed by some more inquisitive writers, who have collected them together in compilations that have themselves usually been buried in the libraries of the curious. The *Ephem. Erudit.*—the *Ephem. Nat. Curios.*—the Swedish *Amœnitates Academicæ*,—the *Philosophical Transactions* of London,—the *Mem. de l'Acad. des Sciences* of Paris,—the *Nov. Act. Nat. Curiosorum*,—the Hierne *Collect. Academicæ*,—the *Commentaries* of Van Swieten,—the *Erst Grunde eines Physiologie der eigentlichen thierischen Naturthierischer Koerper*, of Unzer,—and the *Magazine zum Erfahrungfseelenkunde*,—contain many cases of this kind that merit the attentive consideration of physiologists, now that the modern discoveries in that branch of science will render intelligible many phenomena that presented a mere chaos to the minds of those who recorded them. We must not omit to mention the *Physiological Nosology* of Mr. Good amongst the sources whence much curious and valuable matter of this kind may be derived: that work, not considering its chief object, is highly valuable from the numerous collection of interesting cases related in it or referred to, and for

this reason alone it merits a place in the library of every liberal student of medicine. We consider that the thanks of the profession are due to M. Fournier, for having undertaken to write the history of rare and curious cases: it was an arduous task, and not likely to meet with the reward due to the labour required to effect it. The present article occupies the space of a hundred pages, and is said by the author to be "rather a rapid sketch than a complete history. If, however, the patronage of some part of the profession is not refused to this labour, I shall pursue it, and shall profit by the materials that I have collected to compose a more complete essay on rare cases." We shall select from this work the principal part of such facts as coincide with the views we have disclosed, and shall commence with the subject of *Uterine Conception.*

"The annals of the history of man are filled with extraordinary facts of the aberrations of nature from the ordinary state in the phenomena of conception; I shall confine myself to the recital of a few of the most interesting and remarkable.

Amédea Bissieu complained, from his infancy, of a pain in the left side: this side was larger than the opposite one, and presented a tumor which gradually increased in size. The physical and moral faculties of the child nevertheless became well developed. When about thirteen years of age he was suddenly attacked with fever, and the tumor became voluminous and more painful. After the lapse of some days the patient voided by stool a quantity of fetid, puriform, matter. Three years after this attack, he became affected with pulmonary phthisis; and at this time he voided by stool a ball of hair. He died about six weeks afterwards, in a state of consumption, at the age of fourteen. Two medical practitioners opened the body: they found in a bag attached to the transverse portion of the colon, and then communicating with the cavity of that intestine, several balls of hair, and an organized mass having many traits of resemblance to a human fœtus: this mass, on careful dissection, discovered traces of some of the organs of sense; a brain, spinal marrow, very voluminous nerves, muscles degenerated into a sort of fibrous matter; a skeleton composed of a vertebral column, with the head, pelvis, and almost the whole of the extremities; an umbilical cord, very short, was inserted into the transverse mesocolon, with an artery and a vein ramified by the opposite extremities in the parts of the fœtus, and on the mesocolon. The organs of digestion, of respiration, and of the urinary section, as well as those of generation, were wanting."

This case, as our readers will perceive, resembles in its principal circumstances that which occurred to the observation of Mr. Highmore, of Sherborne, in the year 1814; an account of which was published by him, and the subject publicly exhibited in London. An analogous instance is also related in the first volume of the Medico-Chirurgical Transactions.

(To be continued.)

Anatomico-Physiological Examination of the Medicinal Leech; by Henry Lebrecht Kurzmann, M.D. Physician to his Majesty the King of Prussia, &c. With five Plates.—Berlin, by Stuhr, 1817. 8vo. pp. 107.*

The natural history and anatomical description of this animal has, indeed, been frequently discussed, and has of late amply and judiciously employed the able pen of Dr. Johnson: nevertheless, the following extract from the work of a gentleman, who for a series of years has been engaged in the investigation of the structure and nature of this animal, (which perhaps by no other is surpassed in medical utility,) it is hoped, will not be deemed unacceptable. In the course of his researches, he has succeeded in making some new observations, besides finding many former ones confirmed. Without entering into any farther preliminaries, we shall, therefore, at once proceed to give the substance of the work.

The leech is thickly covered with a gelatinous substance, of a somewhat deeper grey and more aqueous nature than the similar one of snails: this covering penetrates deeply into the skin, and appears to be essentially necessary for the existence of the animal; it soon getting exhausted, and dying on its being repeatedly wiped off. Beneath this covering a thin epidermis is met with, which, bursting in front of the abdomen, is cast off twice or thrice a year, commonly retaining the perfect shape of the body.

Under this epidermis appears a coreaceous coat or cutis, containing those coloured spots that cover the whole leech, and is disposed in rings or annular muscles, that surround it transversely; of which Dr. K. counted ninety-four on the body, and six on the upper lip. The skin of each ring consists of minute, oblong, quadrangular laminæ, of equal size, placed in double rows behind each other, and may be seen particularly plain on the back; their larger edge being situated longitudinally, and the short ones across the body. On the animal's contracting itself, the laminæ of one annular row encounter those of the other of the same ring, though not all in an equal degree, but each single pair, as they are situated in succession, either more or less; giving the skin a tubercular appearance.

The head consists only of an oval lip that projects from the body, the rim of which is bent downwards, and met below by the rim of the body, somewhat bent upwards in the shape of an under-lip. Of these lips the leech makes use, partly for receiving its nutriment, and partly in its advancing motions. On

* This abstract of a work on an interesting subject of Natural History was communicated to us by Dr. Von Embden, of Hambourg; and, in justice to the literary acquirements of that intelligent physician, we think it proper to inform our readers that it is given in his own words. It is but rarely that we find our language written with such facility and gracefulness of expression by a foreigner.—Edit.

each side of the first ring of the upper-lip, three small black spots or tubercles make their appearance, elevating themselves in a somewhat globular shape; and two similar ones are seen on the upper rim of the following rings. These spots which, even in the largest leeches and in the clearest light, can be perceived by the naked eye only when the lip is distended lengthways, have erroneously been taken for the eyes of the animal; but our author is of opinion that the leech is entirely destitute of the faculty of sight, and considers these supposed eyes to be mere organs of feeling; which he proves partly by the animal's not showing the least sensibility on its sudden exposure to light, and partly by its motions, as it always bends the lip in the shape of a hoof whenever it is going to quit its place, not previously touching every occurring object with the point of the lip, but rather touching, and in a manner feeling for it, with the sides where the eyes are supposed to be situated.

On the belly, between the 24th and 25th ring, counted from before, a white skinny spot, with a small central cleft, is discovered. This is the orifice of the penis, which, in dead leeches, especially when killed by means of hot water, hangs out in the form of a string, of the thickness of common sewing thread, to the extent of three or four lines.

Farther down, in a straight direction under the said spot, between the 29th and 30th ring, appears a similar spot, which is the opening of the vagina. Besides these two openings, there are, on either side of the belly, on each fifth ring, the apertures for the respiratory organs.

On the back of the leech, in the salone, between the body and the caudal extremity, (or, as our author terms it, the foot,) appears an exceedingly small slender slit, constituting the anus. The foot, or round skinny disk, projecting all round the body like the rim of a plate, consists of a texture of muscular fibres, crossing each other in every direction, and possesses, like the mouth, the capacity of fastening itself by suction to objects with considerable force, and, in conjunction with the mouth, assists the leech, as is well known, in moving forward.

Beneath the cutis is the muscular coat, the muscular fibres of which may be plainly exhibited by fastening a living leech, extended in such a manner as not quite to smooth the rings, to a plate of wax; then killing it quickly by means of boiling water; and, thus prepared, exposing it for some hours to the action of nitric acid, diluted with one-third of water. If now the cutis be carefully dissected and laterally separated from the muscular coat, the latter will be found to consist of a number of fibres, placed one upon another, and running in a straight direction from the oral down to the caudal sucker. They lie thickest on the upper part of the animal, round the œsophagus, where they in some measure appear to take their origin; but appear to grow thinner, and even to lose themselves totally, towards the caudal extremity, particularly at the sides of the animal. Every pair of laminæ in

each ring is provided with a separate muscle, which is fastened with its lower end to the subjacent muscle; then running on in a straight line from the forepart backwards, dividing itself at its posterior end into two strings, one of which adheres to the fore-rim of one lamina, and the other to the back of the succeeding one; but, on the rings situated more backwards, it runs on, under twelve, sixteen, or more rings, before it attaches itself to any one. To this disposition it is owing that the leech is capable of making the most different motions, and of assuming the greatest variety of shapes.

This greater number of muscles in the oral region gives the leech its great force of suction, and the smaller number of the same towards the caudal extremity is made up by those of the caudal sucker. In very large leeches, Dr. K. found another layer of muscles just above those described, which disappeared on both sides in the skin of the animal, and ran in a slanting direction across the body; so that each single fibre stretched itself under twenty or more rings. They were exceedingly slender, and firmer than the other muscles; lay not quite so close together; and did not run uninterruptedly all round the body, those on the back being separated from those of the belly.

Below the muscular coat appears another, which Dr. K. calls the villous coat; a fibrous velvet-like substance, of a dark-brown colour, closely covering the whole inner surface of the muscular one, firmly adhering to the same, but no where connected with the inner parts. At the outermost rim of the upper and under lip, a thin white single coat takes its beginning, and is to be considered as a continuation of the epidermis, lines the inner surface of the lips. The two folds situated behind the upper-lip, then turning over the three rows of teeth, lines the inner surface of the œsophagus, and proceeds to form the alimentary canal. The two folds just mentioned are of a semilunar shape, and of a solid, though less firm consistence than the external coat. The foremost one is commonly larger than the hindermost. They seem to be peculiarly useful to the leech in its advancing motions by means of the mouth, then covering the teeth, which otherwise would prove a hindrance in these exertions.

Behind these semilunar folds the œsophagus takes its commencement, which, during the extension of the leech, is about four lines long and two broad, consisting of thick pretty firm muscular fibres, that appear to run in layers, nearly in a slanting direction, from the top to the bottom, and partly from the belly to the back in a straight line, joining each other at their hinder end. Some fibres do, however, also stretch themselves more than an inch over the alimentary canal, without joining the same, losing themselves in the general muscular coat. By means of this double layer of muscular fibres the œsophagus is rendered capable of contracting itself both longitudinally and latitudinally.

(To be continued.)

CRITICAL ANALYSIS

OF RECENT PUBLICATIONS,

IN THE

DIFFERENT BRANCHES OF MEDICINE, SURGERY, &c.

Transactions of the Association of Fellows and Licentiates of the King's and Queen's College of Physicians in Ireland. Vol. II.—8vo. pp. 600. Cummings, Dublin; and Longman and Co. London.

WE entered on the perusal of this contribution to medical science with the most interesting and grateful sensations, from the recollection of the information we had derived from the former part of the Transactions of the same learned Society; and the expectations we had formed respecting its value have not terminated in disappointment. Transactions of Societies constituted, like the above, of men really eminent for talents, furnish a rich intellectual banquet to the studious enquirer, who is disposed to recognize the superiority of important facts to the most plausible hypotheses merely founded on probable data: a disposition which we all assume, after a certain extent of experience and reflection have tempered the ardour of youthful expectation. This principle is promulgated in the institutes of all the most eminent scientific societies in Europe, which require in the contributions of their members, a detail of facts judiciously selected and accurately arranged, devoid of hypotheses, and, indeed, of any theoretical disquisitions beyond what may be necessary to elucidate and develop the circumstances to which they immediately relate: requisitions that may be but little flattering to indolence, vanity, and a vivid imagination, but which are eminently favourable to the discovery of truth, and the certain, though perhaps slow, advancement of useful knowledge. The dictates of such institutes, relaxed with judicious reserve, have evidently guided the proceedings of the Society which are about to become the subject of our consideration.

The present collection of Memoirs commences with the relation of an instance of—

Successful Operation of Paracentesis of the Thorax; by NICHOLAS ARCHER, M.D.

"In the month of October, 1798," says Dr. Archer, "I was sent for to visit a gentleman, aged 41, who, until within the last

three years, had enjoyed very good health, was of a strong athletic form, and lived a temperate life.

"I could collect from his physician, that, about three years previous to my visit, he had an attack of pleurisy, which yielded to two general bleedings, a blister, and the antiphlogistic regimen. Shortly after his recovery from this attack (which seemed to be confined chiefly to the right side of the thorax), he began to complain of a short dry cough; a sense of heat in the right side, not amounting to pain; difficult breathing on using any exertion; palpitation; and lividity of countenance. When he remained quiet, his breathing was perfectly tranquil, and his countenance natural.

"He had consulted most of the medical men in London and in Edinburgh, whose several opinions coincided in recommending him to remove to a more temperate and southerly climate. According to the recommendation of these medical gentlemen, he went over to Lisbon, and thence into the interior of Portugal; where he remained more than a year, without reaping the smallest advantage by the change, which induced him to return home. Whilst in Portugal, he thought he could perceive the motion of a fluid in the right side of his thorax, and endeavoured to impress this idea upon his medical friends, whom he re-visited on his way home, but without effect.

"On my visit to him, which was nearly three years after his first attack of pleurisy, he complained of all the above-recited symptoms, but in a more aggravated degree; his countenance nearly approaching to dark lividity, and his pulse at 130 in a minute; great emaciation; but still his breathing was but little disturbed, except on exertion.

"He begged of me to examine him very particularly; for which purpose I placed him on his back, a little inclining to his right side, and pressed strongly with my fingers between the ribs of his right side. On his gently agitating his chest, I distinctly perceived an undulating motion under my fingers; and, on applying my ear close to the part, I could hear a noise like that produced by shaking a small cask not quite full of water.

"I told him, that his idea of the existence of water in his chest was well founded; that it would be most difficult to remove it by absorption, and recommended that it should be drawn off by operation. He submitted to the suggestion with the greatest alacrity; and, in a short space of time, two other medical gentlemen were procured, who agreed that nothing less than the paracentesis of the thorax could serve him.

"The operation was accordingly performed, and eleven pints of an inodorous fluid, resembling whey, were gradually abstracted. The tube of the canula was frequently obstructed by a solid substance, but, on the introduction of a probe, it used to pass off. On examining these solid substances, they were discovered to be small branches of the bronchiæ, in a shrivelled decayed state. During the drawing-off of the fluid, his pulse gradually diminished

in quickness and increased in fullness; and, at the close of the operation, they rested at 86.

"For some few days after the operation, the discharge from the orifice amounted to nearly two pints in twenty-four hours, of the same kind of fluid; but it gradually lessened. His breathing became free; the lividity of his countenance disappeared; his appetite mended; he daily gained flesh; he was able, in a few weeks, to walk and ride out in the open air; and his cough nearly subsided.

"At his own suggestion, a slightly-astringent lotion was thrown into his chest through the open orifice; at first, consisting of a small portion of lime-water mixed with rennet-whey; and, in a short time, we ventured on a weak solution of sulphat of zinc in rose-water, with the most decided advantage. In four months all discharge nearly ceased; he gained strength, and enjoyed tolerably good health for three years.

"It would appear as if the first attack of pleurisy which this gentleman had suffered had been the cause of all his after symptoms. It is probable that an ulceration of the external pleura had taken place, and that a small lympathetic had been included in this ulceration, which, gradually oozing its lymph into the right cavity of the chest, occasioned a gradual compression of the lungs; which, in the course of the progress of the disease, must have been compressed into a very contracted space. It would appear, too, as if the lungs themselves were free from ulceration, as he had but little cough, and but very little expectoration, which was perfectly mucous, and not approaching to the nature of the fluid drawn off.

"Eleven pints of fluid would nearly occupy the whole of the right cavity of the chest; therefore, there could be no space at that side for the lungs to expand in inspiration. He had no œdema."

We have transcribed the whole of the observations of Dr. Archer on the above case, and have to regret that a studied conciseness of relation appears to have deprived us of some important information respecting it. It is very desirable to know whether or not the right lung became distended, and performed its natural functions, after the operation: this we think might have been ascertained from obvious means of experiment. The changes that took place in the pulse, breathing, and countenance, after the fluid was drawn off, seem to indicate that it admitted of the transmission of blood; whilst the length of time that it had suffered such powerful and extensive compression, and the separation from it of "small branches of the bronchiæ, in a shrivelled decayed state," would lead us to suppose that it had undergone a change of structure analogous to what is observed in other organs, on many occasions, when their functions have been

long suspended, and they have become, in a manner, extraneous parts in the animal economy. Physiological reasoning would lead us to consider the consequences of the operation as essentially connected with the above circumstances. Without a knowledge of them we are, therefore, unable to determine either the precise inferences of practical utility that may be deduced from it, or the rank that should be assigned to this, amongst the few instances that are recorded in which a similar operation has been attended with fortunate results. We should rather attribute the serous effusion to chronic inflammation of the pleura, than the cause assigned for it by Dr. Archer.

There are, however, some circumstances of much interest attendant on the above case and the measures employed by Dr. Archer. They will assist in removing the undue fears that have been entertained respecting the exposure of the cavity of the chest to the external atmosphere; and, in conjunction with the celebrated operation of M. RICHERAND, and the opinions he has advanced respecting a new mode of treating many diseases of the thorax, particularly effusion of serum into its cavities, may probably furnish grounds for some useful practical improvement in the art of surgery. The operation performed by the people of the Tonga Islands, as described in the narration of Mr. Mariner, the authenticity of which can be relied on, should also not be neglected in our reflections on this interesting subject.*

II.—*Two Cases of fatal Constipation of the Bowels.* Communicated by WILLIAM STOKER, M.D.

"These cases," Dr. Stoker observes, "are not uncommon; nor probably would the disorganization found after death appear so, if examination of the bodies of those dying of such diseases was more general." They will be contemplated with considerable interest by the more reflective part of the profession. Our limits will only permit us to observe, that in one case, that of a lady seventy years of age, where the patient had been long subject to obstinate costiveness, and at length died in consequence of this affection, the transverse arch of the colon was found much distended and ruptured; apparently in consequence of a diseased state of the rectum, which was hard and contracted for the space of four inches.

In the other patient, who died under analogous circumstances, the transverse arch of the colon, and the cœcum, were much distended: the latter would contain nearly a

* See *London Medical and Physical Journal* for February.

gallon of fluid, and a small aperture was discovered on a part of its surface. "The uterus was much enlarged and hard, and evidently cancerous. It had formed firm adhesion to the rectum and bladder, both of which were in some degree affected by the cancerous disease." The rectum was almost entirely obliterated for a space of nearly six inches.

III.—*Case of Ruptured Uterus;* by CHARLES FRIZELL, M.D.

Dr. Frizell has judiciously considered that every instance of favourable termination of so serious an accident merits publicity; for although, as he observes, cases of this kind are related by Dr. Stanton, Dr. Douglass, Mr. Manning, Dr. Hamilton, Dr. Joseph Clarke, Dr. Labat, and many other physicians, yet the fatal termination of the greater number of them would lead practitioners almost to despair of a favourable event, and in some degree prevent the active exertions that should be made for the assistance of the patient.

In this case the woman, the mother of six children, had been in labour during three days and two nights, when she was visited by Dr. Frizell: she was then much exhausted. An arm of the child presented in the vagina: the left foot was brought down, but the attempts to deliver the fœtus by it were not successful. Hæmorrhage now came on. On further attempts, the leg separated; and, on introducing the hand in order to bring down the other, a portion of the intestines was discovered in the vagina. With the help of a crotchet affixed to it, the right foot was brought down after some difficulty, and the child wholly delivered. A rupture of the uterus was found "to commence at the upper part of the symphysis pubis, and to proceed, on the left side, to nearly the middle of the opposite part of the sacrum."

"I carefully pushed up the intestines," continues the author, "but found some difficulty in replacing them, as they constantly protruded, or one portion presented itself whilst I was endeavouring to replace another. Under these circumstances, I tried to bring the lacerated edges of the rupture together; but, still finding the intestines to protrude a little, I pushed them up pretty high, and, slowly withdrawing my hand, brought the edges of the rupture to overlap one another, and think, after this arrangement, they retained their situation, particularly as the womb had by this time contracted a little; and, on subsequent examination, I did not perceive that they had descended."

By a judicious application of mild antiphlogistic measures, the unfavourable symptoms were obviated: the patient finally recovered, and has since produced another child.

IV.—*A Case of an unusual Termination of Psoas Abscess.* Related by SAMUEL WILMOT, Member of the College of Surgeons in Ireland; one of the Surgeons of Dr. Stevens' Hospital, and of the Charitable Infirmary in Jervis-street; Lecturer on Surgery, &c. &c.

The patient of this case was a man, aged 22, who became affected with pain in his loins after having slept in a damp bed. A year afterwards, when he consulted Mr. Wilmot, he had a tumor in the groin about the size of a tennis-ball, evidently containing a fluid. There were also present hectic fever, and symptoms of psoas abscess, unaccompanied with disease of the vertebræ. He then refused to submit to the measures proposed by Mr. Wilmot. After another year had elapsed, he again requested his advice; when the tumor in the groin had much increased in size, measuring nearly fourteen inches in circumference at its base, and apparently containing a gaseous fluid, which could be made to pass into the abdomen by pressure. The canal of communication was beneath the femoral ring. This was the only inconvenience he suffered: his health was perfectly restored.

Mr. Wilmot adduces some reflections relative to this phenomenon, which we shall have occasion to illustrate on a future occasion, when we take into consideration the *Croonian Lecture* given by Sir EVERARD HOME to the Royal Society in the year 1818.

"We know," says Mr. Wilmot, "from numerous facts, that the cysts of abscesses are highly organized, having arteries whose office it is to secrete pus, and absorbents which not unfrequently take up, either totally or in part, the matter in contact with them. In the case under consideration, the matter was entirely absorbed; and there was also a cessation to the secretion of more matter, in consequence of the great change in the patient's constitution. The arteries, having ceased to be employed in the secretion of pus, now assumed the office of secreting air; and by this means the gradual obliteration of the cyst by contraction was prevented, which is usual in ordinary cases, when the matter is removed by the absorbents. There is no point in pathology better established, nor one more universally admitted, than the power of arteries to secrete or separate air from the blood. This is proved in cases of emphysema, where the lungs are entire, and also in that affection termed tympanitis: if, then, it is admitted that the arteries of the cellular membrane, and of the stomach and of the intestines, can at times secrete air, I conceive that I have not advanced any thing strange or inconsistent by allowing a similar power to the arteries of the cyst of an abscess whose integrity had not been destroyed, either by a natural or artificial process."

There were but two obvious modes of curing this affection, Mr. Wilmot remarks,

"One by puncturing the tumor and letting out the contained air, and then bringing the sides of the sac into contact, so as to cause the opposite surfaces to adhere, and in this way destroy the cavity; or by pressure, to promote its absorption, and, by a continuation of the pressure, to bring about obliteration, either by contraction or adhesion. I determined upon trying the effect of pressure, which succeeded most effectually. I applied a bandage and compress, wet with a strong decoction of oak-bark and alum: this application produced a considerable corrugation of the skin. In about three weeks the air was almost entirely absorbed, and the sac considerably diminished. I now got a truss, made with a pad so as to cover the entire extent of the sac. The patient was now able to walk; and, in about four weeks from putting on the truss, left the hospital perfectly free from any swelling."

V.—*On Apoplexia Cephalitica;* by WM. STOKER, M.D.

Some facts that have occurred to the observation of Dr. Stoker led him to consider that advantage would arise from a subdivision of CULLEN's second species of apoplexy into two distinct varieties,—the first to be termed *apoplexia cephalitica*, the second *apoplexia hydrocephalica;* and some cases are related in this paper, which, he considers, show the propriety of this arrangement.

The errors and incongruities of Cullen's nosological classification cannot fail to engage the attention of every observant and judicious physician; especially those parts of it where the remote consequences are confounded with, or considered as, the proximate effects of disease; which parts have been productive of more injury in their application in practice, by those who attend to words rather than the real ideas of things, than could possibly have arisen from the total want of any classification of morbid affections.

A *methodical* arrangement of diseases is certainly a very desirable object, and is, indeed, essentially necessary to the perfection of the practice of medicine; but it is not on such a foundation as the system of Cullen that this can possibly be raised. Our ideas of the nature of diseases must, it is evident, be derived from their symptoms and signs; for their proximate causes, like those of physical phenomena in general, will never be discovered: we can only trace proximate effects, and it is from an accurate observance of these, their origin, progress, mutual and relative analogy or incongruity, and *their* effects, that all our real knowledge of maladies must be derived. This is a task of the utmost difficulty, and one that requires an acute and philosophical mode of en-

quiry; but much progress has already been made in it, and that through the most difficult part of the necessary course: the period, we expect, too, is not very distant, when it will be so far completed as to render the healing art an absolutely beneficial application of the powers of the human intellect. Cullen's system, it is true, is founded on the symptoms of diseases, but, secondary, and even more remote, consequences, are often argued on as proximate ones; and thence the serious errors it leads to in its application in practice. The most eminent modern pathologists consider morbid actions as modifications of healthy ones; that is, that diseased actions are merely variations of essentially existing natural functions: if this be true, no real knowledge can be acquired respecting any one disease in particular, nor any correct methodical nosology be framed, except on physiological principles: a consideration totally neglected in the greater part of the system of Cullen.

As long, however, as that system is generally adopted in our schools, every attempt to improve it must be contemplated with pleasure.

The cases related by Dr. Stoker show that the ordinary symptoms of apoplexy will arise from increased afflux of blood to the brain, or inflammatory excitement of that organ, and exist without the extravasation of either blood or serum. This is a fact that has been frequently observed, but it cannot be too often presented to the attention of medical practitioners whilst erroneous ideas respecting the nature of such affections continue to be associated with the names by which they are designated by systematical writers. The proposal of Dr. Stoker is not free from objections; for, in the first place, it would perhaps be better to confine the term *apoplexy* to sudden deprivation of sense and voluntary power; and it is evident that what is apoplexia cephalitica one day may be apoplexia hydrocephalica the next; and that serous effusion and inflammatory action may exist at the same time. But we must quit this subject, notwithstanding its importance; for we perceive that we are only repeating the remarks of Dr. Kinglake that were inserted in the last Number of this Journal.

VI.—*An Essay on Dreaming; including Conjectures on the proximate Cause of Sleep;* by ANDREW CARMICHAEL, M.R.I.A.

This is an essay which we can only point out to our readers as worthy of their attentive consideration, as it will not admit of an analysis adapted to the limits of our Journal. It contains numerous facts relative to psychology, meta-

physics, and physiology, of the most interesting nature to all who have a disposition to philosophical contemplation. The reader will, however, encounter some propositions in it that will, perhaps, cause surprise on a first, or superficial, view, but of which a little reflection will demonstrate the apparent truth; he will also meet with many notions that will not, probably, be admitted to be correct until some years shall have elapsed. There are some points in it that appear to admit of dispute, but we cannot notice them here, as it would not be right to do so without adducing the arguments of the author in their support.

It is a subject for regret that this essay has not yet been published in a separate form: it should not escape the attention of any psychologist, or metaphysician, and there are many who would not expect to find so fine a specimen of the καλοκαγαθον, on such a subject, amongst a collection of Medical Memoirs.

(To be continued.)

History and Description of an Epidemic Fever, commonly called Spotted Fever, which prevailed at Gardiner, Maine, (in the United States,) in the Spring of 1814; by E. HALE, jun. M. D. M. M. S. S.—Wells and Lilly, Boston; and Souter, London. 1818. 8vo. pp. 246.

THOSE who have witnessed the progress of a desolating epidemic disease, especially one of a novel character, or of which the origin is unknown, can alone correctly appreciate the value of faithful histories of that class of maladies, and feel of what importance it is that none of them should be suffered to pass by unnoticed in the annals of medicine. Without such histories, the physician knows that he must see many persons fall victims to their influence, who might have been saved had he possessed the results of the experience of others under similar circumstances; and, although the judicious practitioner may soon discover the means best adapted for their relief, yet he cannot with equal precision ascertain the essential cause of their production, and thence determine efficient prophylactic measures, during the consternation attendant on their ravages. This knowledge, in the greater proportion of cases, can only be acquired from the consideration of their phenomena, as evinced in different countries, climates, seasons, and under various modes of social intercourse: and even with this information, we have been enabled to determine it only in a very few instances. The essential cause of the greater part of them is not better known at the present time than at the earliest period of

which we have any historical record: we still assign to most epidemic diseases the same origin that Homer did to that which afflicted the Grecian army, encamped on the sea-coast, at the siege of Troy,—the influence of the rays of an ardent sun on a marshy soil.—

τὸν δ' ἔκλυε Φοῖβος Ἀπόλλων·
Βῆ δὲ κατ' ἠλύμποιο καρήνων χωόμενος κῆρ,
Ἕξετ' ἔπειτ' ἀπάνευθε νεῶν, μετὰ δ' ἰὸν ἕηκε.

It appears probable that some ages will elapse before the primary cause of the epidemic maladies with which we are already acquainted, can be decidedly ascertained. To illustrate the truth of this remark, we need only to refer to the yellow fever. Although we possess histories of that disease, by men of considerable talents, from the year 1741 (when it appeared in Virginia) up to the present period, during which interval it committed continual ravages throughout the greater part of the globe, still there exist different opinions respecting its origin amongst men of extensive experience and of the highest repute for the possession of professional knowledge.

Whilst then, as Homer expresses it, the effective agents of epidemic diseases take their course in the shades of night, we must collect with assiduity whatever appears to be connected with their development: we may thus supply to future generations the means for acquiring that knowledge which we ourselves have not been able to obtain.

The subject of the work of Dr. Hale will be contemplated with sensations of particular interest in this country; for, although that disease may have occurred only in a remote quarter of the world, and appears to have totally ceased to exist, yet, the similarity of the climate, in many parts where it appeared, to that of our island; the identity of the race of the greater proportion of the subjects of it with that of the English people; and some analogy that appears to exist between it and maladies which at different times have ravaged our own country, (as far as the imperfect accounts we have of them will enable us to judge,) give rise to reflections that show the forcible claims it has on our attention.

Our object, then, in taking up the work of Dr. Hale, is to point out what will complete the history of the spotted fever of North America up to the latest epoch of its appearance, and to show its character under different circumstances of topical situation and habits and conditions of those who were the subjects of its influence. We have already fully described it as it existed in the years 1810, 1811, 1812, and

1813;* and have, therefore, only to point out such useful additions to our knowledge respecting it as are supplied to us by Dr. Hale.

The author, in a Preface, observes that—

"Several treatises upon the spotted fever have already been published in this country: but, as their object has been to give such an account of it as would apply to its general character as it appeared in different places, they could not, of course, take notice of many of the modifications which it acquired from various local circumstances. It has been my object, in this volume, to give a more *clinical* view of the disease; to exhibit it in its varieties, as it appeared to the physician at the bedside of his patient; rather than to seek its place in a regular system."

That this has been well effected by the author is evident from the marks of acuteness and precision of observation, and comprehensive and judicious views, that are manifest throughout the work; which must, from these circumstances alone, prove highly valuable to the practitioner, should the subject of it recur at any future period.

Dr. Hale commences with a topographical description of the scene where the spotted fever occurred to his observation; he next describes the habits and manners of the inhabitants, the diseases generally prevalent amongst them, especially those with which they were affected for a short time before the existence of the epidemic, of the origin and progress of which he then proceeds to give a particular and general history.

The face of the country throughout the district of Maine is for the most part hilly, though rarely mountainous; the valleys between which extend only a short distance, soon rising to the elevation of the surrounding country, which is much higher than the elevation of the rivers, with which the whole of this district is well supplied. The parts of it extending to the sea-coast are generally rocky, and apparently barren. The interior is for the most part abundantly fruitful; the soil of which is in some few places sandy, more frequently clayey, and still more extensively, loamy. The towns have been all recently settled, very few of them being more than forty years old, and most of them still more modern: of course, extensive forests prevail in every part of the district. The climate varies in temperature from a range of the thermometer, of from several degrees below the zero of Fahrenheit, to 80 or 90 above it; but it is much less subject to frequent and violent changes of temperature than

* See *London Medical and Physical Journal*, vol. xxvi. p. 217; vol. xxix. p. 328; and vol. xxxiii. p. 92.

the more southern parts of the country. The winter is long, and the transition from that to summer is rather sudden. Rains, which are rare in winter, are generally sufficiently abundant in summer. Violent winds are exceedingly uncommon, and in cold weather never occur. "Nothing can exceed the serenity, transparency, and brilliancy, of a cold winter's evening on the Kennebeck." The town of Gardiner is situated on the west side of the river Kennebeck, about forty miles from its mouth, in north latitude 44° 14′, and west longitude 69° 44′. The inhabitants are generally farmers; and many of them, having been long accustomed to obtain their support from the produce of the forest, are hardly reclaimed from the irregular and improvident, though hardy, habits, to which their mode of life had formerly subjected them.

"From the preceding observations," observes Dr. Hale, "it will naturally be inferred that the diseases to which they are most subject are those of an inflammatory kind. This may be true in general, although, during the time I resided in Gardiner, it was only to a very limited extent in that place and its vicinity. Rheumatisms, especially chronic rheumatisms, were very common; but, excepting these, diseases of inflammation were exceedingly rare, and in those which occurred there was such a tendency to prostration of strength, that much caution was necessary in the use of depleting remedies. Almost all cases of fever, which I saw, partook more or less of the character of that described in this treatise."

After some judicious reflections on the importance of attending to the state of the atmosphere, &c. as connected with prevalent diseases, which our limits will not permit us to notice; and a detail of the cases that occurred in his practice immediately previous to the appearance of the epidemic, which we pass over as not furnishing any apparent data at all connected with it; the author enters into the history of the spotted fever.

"At the commencement of the year 1814, there was nothing at Gardiner to indicate the approach of the epidemic that was to follow, unless it was its prevalence in some towns in the vicinity. The year preceding had been abundantly fruitful. The autumn and first part of the winter was drier than usual, but not so much so as to produce a drought of any importance. The winter was a pleasant one, without any unusual physical occurrence to distinguish it from others in that climate.

"Early in the autumn of 1813, we began to receive accounts of a destructive epidemic in many towns not far distant. As the winter advanced, the accounts became more and more threatening as the disease approached nearer to us. It was frequently fatal, and the character which it acquired by report did not diminish its terrors. The first case in Gardiner, to which I was called, was

on the 11th of February. The patient had been several days ill, but not so sick as to call in a physician till this time. The case proved to be a severe one, but eventually terminated in recovery. It was nearly a fortnight before any other cases of the fever occurred. Towards the last of February, however, several attacks followed each other in such quick succession as to produce a considerable alarm: some of these were in the family and immediate neighbourhood of the person first seized; others were at a distance, and had had no communication whatever with the sick.

"Throughout the month of March the epidemic extended itself rapidly in all directions. In some of the families, where it first made its appearance, almost every person was seized by it; in others, only one or two were at any time materially affected: in some cases it seemed to spread progressively from house to house, as if communicated from one person to another; at the same time that in others it suddenly made its appearance in distant neighbourhoods, seizing sometimes two or three persons in a family, nearly at once. All classes of people and all ages seemed alike exposed to its attack.

"Towards the end of this month the epidemic was more prevalent than at any other period: within a small circuit, more than fifty were confined with it at the same time; many others, who were not reckoned among the sick, were slightly affected by similar complaints; so that the sick and the invalids included a very large proportion of the population.

"Early in the month of April the progress of the epidemic began to abate, and it continued to diminish throughout that month, especially in the parts of the town in which it had previously raged. About the 20th, I was called to a considerable number of cases in Pittston, on the east side of the Kennebeck river; as well as to several new cases in Gardiner.

"Throughout the month of May, also, a considerable number of cases occurred; but they grew less and less frequent until the close of the month. The epidemic may be said to have terminated its course in Gardiner within this month. In each of the three following months, of June, July, and August, I did not see more than two or three cases of fever of any kind.

"During the whole period of the epidemic, sores of different kinds were unusually prevalent, as well as for some time after its termination. The most frequent of these was a species of boil, somewhat resembling a carbuncle, which was very common with the convalescent, as well as with those who had not been affected with general fever. It was a very painful tumor, which, in the course of two or three days from its commencement, ulcerated, and cast off a gangrenous slough. They were not often so severe as to require any other medical treatment than an emollient poultice, except when they were merely symptoms of a more important disease. The whitlow was also unusually prevalent at this time. Headachs and other slight symptoms of fever were almost univer-

sal. Hardly a person could be found in the village of Gardiner, or its immediate vicinity, who had not, in the course of the three sickly months, been the subject of an affection more or less severe, which was similar in its character to the more important cases of fever. Most of these, perhaps, would hardly have been noticed at any other time; but they deserve to be mentioned as examples of the strong and universal tendency to a particular disease, which prevailed at that period.

"It was observable that the epidemic, throughout its whole course, was remarkably affected by the state of the weather, and especially by any sudden change in its temperature. This was true, not only in respect to the effect on individual cases, but also as applicable to the epidemic as such. A few days of unusual cold seemed to render all the existing cases more severe, and at the same time produced a greater number of new attacks; while, on the contrary, a change from cold to milder weather produced a corresponding effect, in mitigating the symptoms and lessening the ravages of the disease."

We shall pass over the description of the symptoms and progress of the disease, as these did not materially differ from them as related in former parts of our Journal, and our limits will not permit us to copy at length the numerous traits of acute discrimination, on which the peculiar excellence of the present work depends.

It is much to be regretted that Dr. Hale had not opportunities to make examinations of its subjects after death. As far as they were carried on former occasions,* it would appear that cerebral, and sometimes pulmonary, congestion, occurred to an extraordinary degree, in the first instance; and that the patients frequently fell victims to the immediate consequences of compression of the brain, before disorganization of any part from inflammation had commenced. In those who survived the attack a few days, the consequences either of inflammation of the brain or of the serous membranes of the pectoral and abdominal cavities, were constantly observed. The state of the mucous membranes is not noticed; and probably they were not accurately examined, for it is but rarely that they are sufficiently attended to in *post mortem* dissections. The greater proportion of those who fell victims to it died before the inflammation could, according to the general operations of the animal economy, extend to those parts; and, consequently, before febrile re-action took place. We, nevertheless, consider extreme excitement of the brain as the immediate cause of the disease, although this does not concur with the ideas of the author; and our opi-

* See *London Medical and Physical Journal*, loc. cit.

nion on this point is not shaken by the results of the remedial measures that were considered by Dr. Hale to have been most efficacious,—which were chiefly emetics, the pediluvium, diaphoretics, and active stimulants. These, it is obvious, would act as counter-irritants, and might be productive of benefit, when employed before general febrile re-action commenced; although we consider the use of them as somewhat hazardous.

"The first and leading object (observes the author,) always was to restore, and continue in force, the functions of the skin. The second, which was hardly less important, was to support the strength of the patient. The remainder of the cure was effected by removing the great variety of occasional symptoms which occurred. The means for accomplishing the two first objects were pretty uniformly the same in the several cases; but, for the last, the whole materia medica presented a field hardly enough variegated for the complicated and perpetually changing evils to be removed.

"At the beginning of the epidemic season, I pretty generally commenced the treatment by administering an emetic; but not finding, in most cases, the benefit from its operation which I had anticipated, I soon omitted it, except in cases where there had been symptoms of a derangement of the functions of the stomach previously to the attack of fever. In these cases, an emetic at the commencement of the disease was of very great service, and sometimes entirely arrested its progress.

"Before the emetic was given, however, the patient was put into bed, and pretty commonly had made use of the warm pediluvium."

Powerful diaphoretics were then given; and he continues to observe—

"If the limbs were cold or numb, or subject to pain, directions were given that they should be diligently rubbed, either with the naked hand or with flannel, either dry or moistened with oil or with some stimulating liquid,—such as vinegar or alcohol, and sometimes with a solution of cantharides.

"In this manner the cure was always begun; and, in cases in which the strength was not particularly depressed, very little else was prescribed at the first visit, except an anodyne at bed-time. In the first part of the season particularly, when the pulse was often considerably full and strong, and especially if there were symptoms of a pneumonic affection, I waited until these symptoms had somewhat remitted before I began to administer the tonic remedies, which held a conspicuous place in the general plan of treatment. But when, as in a great proportion of cases, the strength was low from the first, or if it had become so by the continuance of the disease, it was necessary, in addition to the treatment already described, to take vigorous measures to prevent it from sinking altogether: for this purpose small quantities

of brandy were occasionally given in the drinks already mentioned, a diet as nutritive as the patient could take was recommended, and a variety of medicinal tonics prescribed.

"When symptoms of faintness or torpor appeared, at whatever period of the disease it might be, the diffusible stimuli were diligently administered. The aromatic spirits and volatile oils, in all their variety, were given in small doses frequently repeated."

These measures were successful in by far the greater proportion of instances; and, therefore, it would be vain to adduce theoretical opinions against the remarks contained in the following paragraph:—

"I mention venesection (says Dr. Hale,) among the remedies for this disease, although I did not employ it myself, nor see any case in which it had been employed; because it has generally been considered a powerful remedy, and because it gives me an opportunity to say that I have had no experience of its efficacy. I was deterred from practising it by the great tendency to debility which I witnessed in the disease, as well as by the reports which I had heard of the disastrous effects which were said to have followed its use in other places. The foundation of these reports, or the accuracy with which they were related, it does not come within my plan to examine here."

Should, however, a similar disease appear in our milder climate, and amongst its more plethoric inhabitants, we should advise the pediluvium to restore some degree of reaction in the extremities, if torpor to the extent that occurred in the epidemic under consideration should take place; and then that blood-letting should be used with freedom, without being alarmed by the debility, langour, stupor, coma, or "exhaustion of the vital powers:" for we consider these symptoms to have arisen from compression of the brain, and the abstraction of the natural excitement of the body in general, consequent on the great irritation of that organ. Under some circumstances, such measures, however, as will cause diffusion of an equable excitement may, doubtless, be the most prompt and efficient means of relief; and such would appear to have been the case in those witnessed by Dr. Hale.

Our opinions on this subject are supported by those of the committee formed at Massachusetts, in the year 1810, when a similar disease was epidemic in various parts of New England; as the measures we have pointed out coincide with those inculcated by the enlightened members of that committee.

We must refer our readers to the author himself for his observations on the remedial treatment which he considered best appropriate to this disease, and for the cases which

he relates to illustrate the efficacy of that which he employed.

The work concludes with some general remarks on the nature of the disease, and the peculiar character it has assumed under different circumstances of temperature of climate, topographical situation, and the habits of those who were the subjects of its influence. But the same reasons we gave for not entering into the particular consideration of its symptoms, as it occurred to the observation of Dr. Hale, will equally apply to the points to which we have just alluded. We cannot, however, with propriety, dismiss this work without remarking that, it will constitute a valuable clinical guide to the medical practitioner who may be called to witness the recurrence of the epidemic; and it merits a place in every medical library, as a perspicuous and accurate history of a malady, which, under the name of the *spotted fever*, has inspired a dread throughout the United States that will scarcely be forgotten so long as memory or tradition shall continue to exist.

An Essay on Catarrhal Inflammation of the Intestines from Cold; by Joseph Ashley Gaitskell, M. D. Junior Physician to the Female Penitentiary and Lock Hospital, Bath.—1819.

This little essay treats with perspicuity on a disease of frequent occurrence, but not sufficiently discriminated in general systems of practical medicine. It is confounded, under the common name of diarrhœa, with affections of different origin and character. The author, following in a great measure the suggestion of Dr. Parr, proposes to rank it under a genus which should be designated by the term "Catarrhus," to be applied to inflammation of mucous membrane attended by symptomatic fever. The species of this genus would be marked by the individual membrane which became the seat of disorder. Under this system, the disease which forms the subject of Dr. Gaitskell's immediate consideration is denominated *catarrhus intestinorum*. This classification appears to us conformable with the legitimate end of nosology, the distribution of identical facts of pathology under distinctive and appropriate heads. Similar affections of resembling structures form the natural basis of nosological arrangement, and, if more strictly attended to, would have afforded systems of more permanent form than have heretofore been framed, and better fitted to impart precision to our notions of disease.

The disease under present notice is characterised by—

"Pain of the belly in the region of the bowels, often extending into the back, aggravated by pressure or change of position, and sometimes by deep inspiration; much eased by quietude and recumbent position. Belly soft. Stools frequent, watery, and acrid; so much so, as in many cases to excoriate the anus. When the small intestines are much affected, sickness and head-ach are prominent attendants; when the large intestines, tenesmus. Fever 'of the catarrhal kind.' From the function of the part, the secondary condition of the secretion is seldom observable in practice."

The author goes through the history, causes, diagnosis, prognosis, and treatment of the disease, with all requisite attention to the method of systematic writers, but perhaps somewhat more diffusely than the general importance of the subject would call for. In his diagnosis are some judicious discriminations, thrown into a tabular form, betwixt this particular species of inflammation of the intestines and other diseases of the same parts, more serious in their character.

A Treatise on Midwifery; developing new Principles, which tend materially to lessen the Sufferings of the Patient, and shorten the Duration of Labour; by JOHN POWER, Accoucheur, &c. Member of the Royal Medical Society of Edinburgh. pp. 270.—London, T. and G. Underwood. 1819.

THE title of this book will, we are sure, fix the attention of many of the profession; and, amongst the readers which it will doubtless procure for the work, we will venture to say that few will be dissatisfied with the time devoted to its perusal. We do not presume to say that the expectations raised by the title-page will be amply fulfilled; experience alone can give warranty to the assurances there advanced: but we are convinced that the order, clear induction, and enlightened views, which pervade this volume, will ensure for it a considerable share of public approbation; and, for the opinions of its author, the fair meed of general respect.

Mr. Power does not profess to embrace the full consideration of all that is usually comprised in systematic treatises on midwifery; on the beaten path he touches cursorily, and only dwells on those parts where he would point out some novelty of view or improvement of arrangement. With this view he treats briefly on the anatomical structure of the parts concerned in parturition; on the physiology of the parturient process he dilates somewhat more at length. Considering pain as an adventitious concomitant of uterine action, incident to the human female, probably, from the

habits of artificial life, he would exchange the designation of the expulsive effort of the uterus, labour-pain, for parturient paroxysm. This, in its perfectly natural state, is stated to be simply muscular action of the organ itself, not interesting other parts, and depending, as does the action of other muscles, on influence imparted from the nervous system. This peculiar modification of nervous power is termed the parturient energy. We merely give these definitions of terms and general positions, as explicative of the author's language in the further progress of the work.

On the exciting cause of uterine contraction, at the term of utero-gestation, the reasoning is very satisfactory. Mr. Power refers it, on analogy from the action of other expellent organs, to an impression made on the orifice of the viscus by the contained matters, which, at the period when the uterine nurture of the fœtus is complete, are, by the expansion of the cervix, brought into immediate contact with it. Reasoning from the derivation and extent of the nervous structure of this part of the organ, he says—

"It may hence be inferred, that the orifice of the uterus possesses a high state of nervous power, and consequently a peculiar function. It has also been observed, that this part becomes little connected with utero-gestation until that office is complete, being previously removed to a determinate distance from the distending process. Is it not, therefore, reasonable to consider that its peculiar function, so far as is connected with a high state of sensibility, is to give warning of the task of utero-gestation being perfected; and to be the medium of calling into action the powers which are appointed to produce the expulsion of the now mature fœtus?"

The establishment of this point is of some practical importance; as, from the knowledge of it, we are enabled, by applying artificial irritation to the part in question, to command in some measure the expulsive action of the uterus.

On entering upon the pathology of parturition, the deviations which occur from a perfectly natural condition of the process are distributed into—

"*a.* Deviations arising from the state of the parturient energy.
"*b.* Deviations produced by mechanical obstruction to the expulsion of the uterine contents.
"*c.* Deviations arising from accidental circumstances."

The section which treats of the first of these orders of irregular parturient action is, perhaps, one of the most important in the book, as in it are developed, in a great measure, the more peculiar views of the author.

He classes the derangements of the parturient energy under the following heads:—

"*a.* The parturient energy, although it evinces perfect uterine action, produces spasmodic pain in the organs of parturition.

"*b.* The parturient energy excites partial or irregular contractions of the uterine muscles.

"*c.* The parturient energy, instead of actuating the uterine muscles, excites actions of parts distinct from the uterus.

"*d.* The parturient energy is suspended, so that it ceases to actuate any part of the uterine or general system."

Under the first head of derangements, Mr. Power proceeds to show that the muscular structure of the uterus is like other muscles of the body, obeying the same principles and regulated by the same laws; and that, therefore, the ascertained facts of one set of organs may be applied in illustration of the functions of the other. In the natural state of contraction of a muscle, the exertion, though violent, is unaccompanied by pain; but, where long-continued opposition is made to the action of a muscle, or it becomes morbidly affected, spasmodic action of its fibres may be induced, attended by painful sensation, which is a symptom merely of the spasm. These principles, applied to the muscular action of the uterus, lead to the inference that the healthy contractions of that organ are, like those of other muscles, unattended by pain. This seems to be the case generally in the parturient efforts of the inferior animals; and that it is sometimes so with the human female is known, in cases of the uterine action going on during the sleep of the individual. From this it would seem that a state of spasmodic action in the uterus is as unnatural as in any other muscle. This preternatural state of action is referred to two causes: over-action, excited by the necessity of overcoming great resistance; and a morbid state of the constitution of the organ. Both these circumstances are considered at some length, and their influence demonstrated.

The second order of derangements, as of rare occurrence, is less important; but that partial and irregular action of the uterine fibres does sometimes take place is evinced in the hour-glass contraction, and may sometimes be discovered during the earlier stages of parturition, by the hand applied on the abdomen, when the uterus may be felt partially tense and in part flaccid. This state depends on some morbid or deficient determination of the parturient energy, or on some peculiar modification of the uterine muscles themselves.

The third order of derangements comprises considerations of much interest; as under this head we find the most frequently occurring causes, independent of malformation or disproportion, of protraction and of suffering in labour: and to this part of the author's work we are disposed to yield our

warmest praise. It is a high satisfaction to follow a lucid development of principles rendered almost demonstrable; and it is a grateful task to acknowledge the conviction which such a train of reasoning imparts.

Mr. Power premises some general views of the nervous energy, which regard its homogeneity, diffusibility, and instantaneity of local determination, affording strong analogies with the electric fluid, to which, he observes, it appears nearly allied. The quantity of its production is under limitation, and thus, if superabundantly determined to any given part, it must become comparatively deficient in other parts of the system. By this law of the distribution of the nervous power, many of its phenomena are to be explained.

"Amongst other effects, it is a consequence of the above law that a secondary action, excited in the system, is capable of counteracting the pre-existent one, so as to diminish, and even entirely supersede, its operation.

"It is here conceived, that the nervous energy supplying the primary part is superseded in that part, in consequence of its being determined, by virtue of a superior irritation, to the secondary one, which then becomes actuated.

"The principle has been termed metastasis, because a translation is made of the actuating nervous power from the primary to the secondary part."

Metastasis is sometimes the effect of a counter irritation affecting the secondary part, whereby the excitement in the primary part is lessened or superseded. This may be considered a state of direct metastasis; but there is another state of metastasis dependent on the consent of parts through nervous influence, implied by the term sympathy. Thus an irritation may be applied to a given part, and a consequent action is not only induced in a distant or secondary part, but the primary one ceases to be affected, although the irritating cause may continue to be applied to it. This state may be distinguished as a sympathetic metastasis, being independent of direct irritation applied to the secondary part, but being excited through sympathetic communication. The sympathetic associations of the uterus are acknowledged.

"We also assert, that, during parturition, it is peculiarly susceptible of the metastatic state, of both the direct and sympathetic kind; and, had we nothing but the above analogies in support of this assertion, it is conceived that it might fairly be presumed. The opinion does not, however, rest on such imperfect ground, but may be fully demonstrated by actual fact and observation."

Assuming the tense state of the uterus, discoverable on applying the hand upon the abdomen of the patient during

a parturient paroxysm, as the true criterion of efficient uterine action, it may often be perceived that, even during an acutely painful paroxysm, this tense feel of the uterine tumor is altogether absent, and the parietes of this viscus remain flaccid and yielding to impression. The os uteri, too, on examination, will be found entirely unacted upon.

"As it is clear that the action of such paroxysm, the effects of which are most decided and distressing, and which it cannot be doubted is produced by the influence of the parturient energy, is not expended upon the uterine muscles, so as to give rise to any real parturient effort, it must follow that the parturient energy which has produced it has, in consonance with the laws of metastatic action, been determined from the uterus, which it ought to have actuated to a distant or different part, the latter having been thrown into action, while the former has become quiescent.

"The above inefficient state is, therefore, to be considered as consisting of a translation of the parturient energy, from the uterine system, to a distant part.

"This translation may be effected either by direct or by sympathetic excitement."

This is elucidated by instances of metastatic action, occurring from irritation of the urinary bladder, determining the nervous energy to this viscus, or transferring it by sympathy to more remote parts.

"In all instances the parturient energy is equally diverted from the uterine muscles, and eventually determined by metastasis to the part ultimately affected, and thrown into inordinate action. As no practical advantage will be derived from further distinction, their future consideration will be conducted under the general term of metastatic action.

"Under a full state of metastatic action, the progress of the case is arrested, nor can it make the least advancement during its continuance, did this last (were it possible) *ad infinitum*. The author has known repeated instances where the delivery has, in consequence, been retarded for two, three, or more days, without the least progress throughout this long period of delay; notwithstanding, from the rapid advancement in the early stage, an expectation had been formed of a speedy termination: in some of these instances, when at length the genuine uterine action was restored, the child has been expelled in a few minutes, without interference on the part of the accoucheur. The same difficulties and similar terminations must have occurred to every experienced practitioner.

(To be continued.)

FOREIGN MEDICAL AND PHYSICAL SCIENCE AND LITERATURE.

Exposition of the Doctrine of M. Broussais.

(Continued from p. 251.)

A STUDIOUS investigation of the causes, symptoms, and terminations, of the diseases which have formed the subject of our reflections; the results obtained from different modes of treatment; and particularly the examination of the bodies of those who fell victims to the violence of their maladies; are the sources whence M. Broussais derives his means of demonstrating the identical nature, and constant seat, of the affections designated by authors by the name of *idiopathic fever*. It remains for us to examine the causes which give to the different shades of *gastro-enteritis* those varieties of character that have induced physicians to separate them from each other.

When the exciting cause of the malady has acted with considerable energy, "we then observe redness and dryness of the tongue, thirst, desire for acids, repugnance to stimulating ingesta, depression of mind, uneasiness about the epigastrium, pain in the abdominal cavity, burning heat of the skin; in a word, all the signs which constitute what has been termed *gastric fever*. If the subject is predisposed to copious bilious secretion, or his bowels are loaded with fæcal matter, the symptoms called gastric embarrassment, either bilious or fæcal, are added to the preceding; and, amongst authors, some say that *bilious fever*, others that gastric embarrassment, are complicated with *gastric fever*." If the patient be predisposed to mucous secretion,—that is to say, of the constitution termed *pituitous;* and bronchial or vesical catarrh is combined with the principal affection; the disorder is then termed *mucous fever*. It differs from the former only from casual circumstances of temperament, or atmospheric influence, having caused a predominance of mucous secretion not only from the gastric organs, but also from the other mucous membranes. In this variety of the disease, the follicles of the mucous membranes appear to be the principal seat of the irritation; and, when it has not terminated favourably within the first twenty days, spots of ulceration, more or less numerous and extensive, are found, particularly about the termination of the small intestine. In some cases there is such a tendency to these erosions, that they appear after the lapse of a much shorter period.

We have shown, in a former article, in what manner the adynamic state of the animal economy was produced: according to M. Broussais, gastric phlegmasiæ, which have not been arrested in their commencement, induce, after a certain length of time, the prostration of strength, the dark colour of the tongue, the fœtid

excretions; in a word, all the circumstances which constitute the state termed *adynamic* or *malignant fever*. This state is also the ordinary termination of inflammation of the other larger viscera; such as pneumonia, pleurisy, peritonitis, &c. The fœtid state of the excretions is only a sign of direct debility of the vital powers: it frequently coincides with the most intense inflammatory state, as is seen in angina; the pus of the phlegmon putrefies more readily in proportion as the inflammation is more severe; and, after death, the body passes into a state of decomposition with a degree of rapidity in a direct ratio with the violence of the febrile disturbance that the patient has endured. It appears then to be demonstrated, that the most alarming symptoms which have served to characterize *adynamic* or *malignant fevers* are only the sympathetic results of intense inflammation of the alimentary canal.

It is absolutely the same with respect to the *nervous* symptoms that form the principal traits in the history of *ataxic* or *nervous fever*. M. Broussais observes, that the various phenomena which constitute the state of ataxia may be the results of the influence which the inflamed organs exert on the central parts of the nervous system.

If we analyse the symptoms of the *yellow fever*, *typhus*, and the *plague*, we shall see that, in the first of these diseases, the yellow colour depends solely on the violent irritation of the duodenum, which is propagated to the secretory organ of the bile; all the other symptoms of that fever are those of inflammation of the stomach and small intestines. The researches of Pugnet, Tommasini, Dubreuil, and many others, leave no doubt respecting the correctness of this determination respecting the seat of the disease. We ought, according to M. Broussais,—and the greater number of judicious physicians adopt this opinion;—we ought to apply the term *typhus* exclusively to a disease produced by putrid miasmata, or transmitted by contagion. What some authors have termed *sporadic typhus* is nothing else than gastro-enteritis accompanied with prostration of strength, and the phenomena of irregular action of the nervous system. If we study attentively the effects of deleterious miasmata on the animal economy, we observe—1°, that they may produce even immediate death, by the powerful influence they exert on the nervous system; 2°, that, when the individual is strong and vigorous, there ensues, after the lapse of a greater or less period of time, a febrile state which is owing to irritation of the most sensible of the organs chiefly formed by the sanguineous system: that is, inflammation of the mucous membranes of the stomach and lungs. The nervous system is always severely affected; and thus prostration of strength, and various irregular phenomena, announce its derangement. "The brain, however," says M. Broussais, "is only primarily affected when the effects of certain circumstances have made the action of the exciting cause predominate in that organ; such as moral affections, nostalgia, excessive heat, &c.; but it always suffers much from sympathy, and sometimes to such a degree that the irritation of it

passes to actual inflammation, which becomes as violent as if it were primitive." Thus, on the closest analysis, according to M. Broussais, "the varieties of febrile typhus are gastro-enterites ordinarily complicated with pulmonary catarrh; these two phlegmasiæ are the result of the influence of a real poison on the animal economy."

The *plague* presents several points analogous with typhus: the ancients, indeed, for a long time confounded these two affections, and designated, by the appellation λοιμὸς, or *pestis*, all contagious diseases productive of great mortality. The causes and symptoms of the malady, and the appearances observed in the bodies of those who have fallen victims to it, show that the digestive canal is the seat of the inflammation which constitutes the disease. If petechiæ, carbuncles, and inflammatory tumors termed *buboes*, manifest themselves, they are appearances which, as in typhus, are merely the results of sympathetic irritation of the skin and cellular tissue; the development of which irritation is favoured by heat of climate.

Such are the fundamental propositions of the doctrine of M. Broussais respecting inflammation of the gastro-intestinal portion of the alimentary canal. The space within which this subject must be confined will not permit us to relate all the arguments, and physiological and pathological observations, which are adduced as proofs of this important part of his system: we believe, however, that sufficient has been said to enable our readers to embrace the order and connexion of his ideas, and to enable them to supply, by their own reflections, what we may have here omitted to adduce.

From what has been said respecting the causes of *idiopathic fevers*, as they are frequently termed, it is evident that the treatment of them should be founded on the two following indications: —1°, to diminish the irritation in the viscera whence they derive their origin; 2°, to re-establish, by means of counter-irritants, the equilibrium of the vital actions.

The morbid irritation of the gastric system should always be combated by spare diet, cool and acidulated drinks, general blood-letting, if the subject be moderately strong, and in other cases local bleeding by leeches to the abdomen, and the other means usually termed antiphlogistic. These measures should be continued with perseverance, and almost constantly; when the disease has been attacked at its commencement, and the patient has not been subjected to the action of causes which have for a long time over-excited the digestive organs, they are sufficient for the removal of the disease, and effect convalescence in a few days. The success that M. Broussais daily obtains from this conduct; the opposite consequences he has frequently occasion to witness from the indocility of patients; the difference of the results from this practice from those derived from the conduct he had formerly pursued; the authority of the practical observations of Sydenham, Pringle, Huxham, and the most judicious physicians of all ages,—are the

motives which induce him to recommend the use of antiphlogistic measures in the diseases we have just considered.

Emetics, so frequently employed in slight gastric affections, he considers a dangerous species of remedy: it is this medicine which, by exasperating the irritation of the stomach, so often causes the slightest affections to pass rapidly to the most violent forms of disease. But the different names that have been given to all those varieties; the vague opinions held respecting their seat, their cause, and the mode of action of the medicine; has prevented the greater number of physicians from appreciating the too-frequently pernicious effects of emetics in these disorders.

The above is the general method of treatment adopted by M. Broussais; various other additional measures are to be adopted, according to the peculiarity of circumstances in different cases. "When gastric irritation is accompanied with excess of bilious secretion, evacuants of the primæ viæ will be proper; but it is important that the period for their exhibition should be judiciously chosen. If the irritation be violent, the use of them should be deferred; and frequently the other measures are sufficient for its removal. Should the symptoms from bilious or fæcal irritation continue, the moment of remission procured by the antiphlogistic measures should be seized for the procurance of evacuations, and the use of sedatives then reverted to. When increased mucous secretion and catarrhal affections are complicated with gastric irritation, the cure will not be so quickly effected, but the treatment is always to be founded on the same basis. If catarrhal irritation persist after the subsidence of vascular excitation, the use of a nutritive diet may be commenced, appropriate to the necessity of the case and the habit of the patient: slight sudorifics, tonics, and even astringents, may be employed, provided that care be taken to proportionate the doses and quality of them to the degree of excitability of the gastric organs."

When muscular debility, contraction of the pulse, torpor of the intellectual functions, &c. announce that the gastro-intestinal irritation has arrived at its highest degree of intensity, is it by placing stimulants in contact with the inflamed organs that we may rationally hope to prevent disorganization and death? Without doubt, we should not in these cases insist on sanguineous evacuation, as in the early stages of the disease: sedatives internally, counter-irritants,—such as, sinapisms to the limbs, vesicatories, &c.—will then be most proper.

"In cases where the febrile state presents itself with the phenomena of nervous disorder, either muscular, sensitive, or organic,—such as convulsions, paralysis, increased susceptability of sensual impressions, exaltation and aberration of the moral faculties, irregular congestion in the viscera, variation in the development of heat, &c."—the *suffering organ*, which is productive of these symptoms, should always engage the particular attention of the practitioner. The fundamental indication is to calm its irritation; then, if the brain appear to be much excited, revulsive measures

should be employed against this complication: one of the most proper is the application of ice or cold affusions to the head, whilst the inferior extremities are plunged into a warm-bath. The congestions which take place in other organs may be treated by analogous measures; but the digestive system, the seat of the inflammation productive of them, should never be exposed to additional irritation.

These principles should serve as a basis for the conduct of the physician in the treatment of typhus. After having detailed the terrible accidents which, according to authors, signalize this disease, and the frightful mortality that most frequently accompanies it, "it has only occurred to me," says M. Broussais, "to find similar maladies in the southern part of the Peninsula, where I passed five years, as chief physician of a division of the army; but neither myself nor my colleagues have met with real typhus, except in a temporary manner, under circumstances of forced marches, great want of provisions, &c. We have constantly found it disappear after a short time, when it was possible for us to put in execution salutary measures. By taking care to moderate re-action by the use of acids, &c.; joining with them revulsive measures when the head was affected; and not forcing a patient, whose tongue was black and covered with a hard crust, and who suffered ardent thirst, to swallow wine, cinchona, and camphor; we had to deplore the loss of but a small number of brave fellows: and, if dissection of those who died caused some regret, it was always for not having been able, by sufficiently prompt attention, to arrest the progress of the inflammation that had disorganized the viscera."

(To be continued.)

Arthrocacology; or a Treatise on Luxations of the Joints dependant on internal Causes; and on the Efficacy, Modes of Action, and Application, of the Actual Cautery, in the Treatment of those Diseases. By J. N. Rust, Professor of Medicine and Surgery to the Royal Military Academy at Berlin, &c.—4to. pp. 195. Vienna, 1817.

(Continued from page 134.)

In support of the opinions he has advanced respecting the original seat of the disease treated of in this work, Professor Rust observes, that the malady first shows itself by pain and swelling about the extremities of the long bones; which, when the disease affects the shoulder or any of the more superficial joints, are very evident both to the sight and touch; whilst the socket of the joint remains in the healthy state. The patient also complains of tenderness of those parts on their being handled. The gradual increase of the swelling, and the dislocation of the condyle from the articulating surface in consequence of its enlargement, may also be traced in those joints which are but thinly covered by integuments: this, however, cannot easily be detected in the hip-joint, in consequence of

the voluminous muscles by which it is enveloped. But, in the latter case, the peculiar kind of pain that is experienced about the upper part of the thigh will point out the seat of the affection. The observations of CAMPER, FORD, ALBERS, and some other writers, the author remarks, do not accord with this statement; and he himself has witnessed some instances where the disease appeared without the pain and swelling above described. But, a careful investigation of these cases has shown that the disease had been accompanied with those phenomena in the first instance, but that a longer or shorter period had elapsed between the original affection and the occurrence of the lameness, during which the disease was not clearly apparent; and thence dislocation of the bone took place without having been apparently preceded by its real cause. He continues to observe, that FABRICIUS HILDANUS,* DESAULT, JAGER,† and many other writers, have observed that the hip-joint disease commenced with pain about the upper end of the femur; and that ASCLEPIADES also mentions pain in the thigh as the original symptom of the disease that produces the dislocation of the hip-joint. The analogy of this affection with those arising from the scrofulous, rachitic, and other morbid diatheses, which are known to affect the extremities of the long bones, tends also to support the opinion here advanced.

But it is from examination after death that the author deduces the most powerful evidence in support of his theory. There are many cases, he observes, in which the cotyloid cavity, as well as the head of the femur, is found destroyed by caries, and in which it may be impossible to trace the original seat of the disease; but there are others, on the contrary, which prove that it begins in the extremity of the femur, and thence extends to the joint. In a girl, who died at twelve years of age from scrofulous pulmonary consumption, he found the cavity of the hip-joint in the natural state, whilst the head of the femur was partially removed from the socket, and the extremity of it, for some distance downwards, thin, and nearly hollow from caries. In a man who died in the last stage of the hip-joint disease, the head of the femur was completely dislocated, and a joint formed in its new situation; the extremity, to a little distance below the great trochanter, was nearly destroyed by caries, but its articulating surface was covered by healthy cartilage; and there was hardly any diseased appearance in the acetabulum. In another case, where the patient had been unable to move the limb for three months, from the severity of the pain induced by the attempt, the head of the femur was found covered with healthy cartilage, though the round ligament was destroyed by ulceration, and the upper end of the thigh-bone much corroded by caries. There was no diseased alteration in the acetabulum, except a little roughness where the round ligament

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* *Cent.* vi. *Obs.* xci.

† *Funfzig Chirurgisch-praktische Cautelen für Angehende Wundärzte.* S. 147, bis. 169. Frankfurt, 1788.

was attacked. Analogous appearances were also observed in other cases that affected the shoulder-joint. Professor Rust says he has inspected many anatomical preparations, that show the disease to have had the origin which he has described; and he refers to observations of other pathologists, as PALETTA, FORD, HOFFMANN, and ALBERS, for facts which also tend to substantiate the correctness of his opinions.

Preparations are, however, to be met with amongst collections of morbid anatomy, in which the acetabulum is found to have been affected with caries, without being accompanied with any alteration of the head of the femur; but these, Professor Rust observes, do not prove any thing against his theory, since precise histories of the cases are always wanting; and he himself possesses one which elucidates the origin of all the rest: in this case, the caries of the acetabulum was the consequence of a collection of matter arising from diseased lumbar vertebræ, which, by resting on the interior of the pelvis, had caused the destruction of the bones, and thence the disease extended into the cavity of the hip-joint; and he continues to remark, that, notwithstanding the numerous opportunities he has had for observation, he never saw a case where the morbid change commenced in the acetabulum, and thence extended to the head of the femur.

Considering the disease in this point of view, Professor Rust thinks the terms *coxalgia, spontaneous* or *consecutive luxation*, &c. which have usually been applied to it, to be improper; and that *arthrocacia*, which the ancients applied to caries of the articular ends of the bones, without any direct relation to spontaneous luxation, would be more appropriate as a common appellation. The affection should then be termed *coxarthrocacia*, in the groin; *omarthrocacia*, in the shoulder; *olecranarthrocacia*, in the elbow; *gonarthrocacia*, in the knee; *spondylarthrocacia*, in the vertebræ, &c.

The author next enters into the consideration of the remote causes of the disease; but little that is novel or satisfactory is advanced on this point; we shall, therefore, pass over this part of the work to that which treats of its diagnosis. We must here observe, that our limits will permit us to give only a very imperfect sketch of the clear and energetic picture drawn by the author. This part of the work is written with extreme care and methodic precision. Every symptom and sign of importance tending to mark the nature and progress of the disease is noticed in a manner that evinces great acuteness of observation and judicious discrimination.

We shall first notice the phenomena of the disease that are common to it under every variety of situation, and then describe the peculiarities in its character which appear in the *coxarthrocacia*, the most frequent and severe form of this affection. The progress of the malady is divided by the author into four distinct periods.

The first stage of the disease is characterized by erratic pains about the extremity of the bone, and sometimes by a slight degree

of weakness of the limb and restraint of its natural motions, before any evident change in the form of the joint can be remarked. At this period the disease consists in an inflammation of the medullary membrane of the head of the bone.

In the second stage, the central portion of the bone begins to be affected with caries, and the form of the parts about the joint is evidently changed. The head of the bone becomes enlarged and softened; it recedes from the other articulating surface of the joint, and an increase in the length of the limb necessarily ensues.

The caries continues to make a more or less rapid progress; the head of the bone is gradually destroyed, the limb is drawn into different directions according to the influence of the surrounding muscles, &c. and the limb becomes shortened: this constitutes the third stage.

The fourth period commences when the disease, extending itself to the soft parts surrounding the joint, produces profuse suppuration of them. Hectic fever also now takes place, and the malady soon terminates in death, unless arrested without delay.

In the *coxarthrocacia*, the first stage of the disease is announced by a deep-seated peculiar kind of pain in the upper part of the thigh, which disappears and returns from time to time; some degree of stiffness is also felt in the groin, accompanied with a slight lameness and a sensation of weakness in the limb, particularly on using a little exertion. On the approach of the second stage, which sometimes occurs in a few months, at others not until after the lapse of some years, the affected limb is found to be somewhat longer than the sound one; the great trochanter is lower, and projects outward more than ordinarily; the nates are flattened, and the natural depression in them behind the trochanter is increased in depth; the whole limb is also somewhat wasted. A severe and almost insupportable pain is now felt in the knee, and some degree of swelling of that part is sometimes evident. After the lapse of a longer or shorter period of time, the head of the bone gradually slips from the socket, though sometimes this occurs suddenly; and the disease has arrived at the third stage. The affected limb is now shorter than the other; the thigh is more bent than formerly; the great trochanter is turned more inwardly, and the thigh has assumed more of a conical figure. It is not uncommon to find the symptoms somewhat relieved at this period, but this is only of short duration: the pain about the knee returns with all its former violence; hectic fever comes on, or increases in severity; tumefaction about the articulation and the upper part of the thigh becomes evident, and a fluctuation in those parts may be discovered. The fourth stage now commences. The skin about the joint gives way, and a large quantity of serous and purulent matter escapes, which is followed by some alleviation of the symptoms. The pus soon acquires an ichorous character; the strength of the patient decays; his sufferings increase; he becomes affected with colliquative sweats and diarrhœa, and death comes to end the long and distressing scene. But, some few instances have

occurred where, even in this state, the disease has been cured, leaving only an anchylosis of the joint and a shortening of the limb.

After having noticed the occasional deviations of the disease from the general course above described, and treated of each of those variations with all the care and precision so interesting a subject deserves, Professor Rust then considers the different affections that may possibly be confounded with it.

Although a careful investigation of the symptoms will render evident the nature of this malady, yet, as it may tend to facilitate the diagnosis at an important period, we shall adduce the comparison of the author between this and the affections that bear some resemblance to it in its early stages: the chief of which are, the *natural lameness of children from mal-formation of the bones of the pelvis*, described by PALETTA;* the *nervous sciatica* of COTUNNI;† *psoas abscess;* and *separation of the head of the femur from its neck, from internal causes.*

In the natural lameness of children, the limb differs in length from the sound one in the first instance; in the hip-joint disease, on the contrary, the length of the limb does not, in the first stage, vary from that in the natural state; and it may be useful to remark, that the shortening of it, which subsequently occurs, is always preceded by an increase of its length. In the former disease, the disproportion of the length of the affected limb will also frequently disappear when the child is placed in the horizontal posture, and the limb may be extended without much pain being induced: in the coxarthrocacia, on the other hand, the difference in the length of the limb is apparent whether the patient be in the erect or horizontal position, and it cannot be extended without causing severe pain. The natural lameness is not accompanied with any alteration in the form of the nates, or they are merely a little flattened, and are not diseased with respect to structure: in the coxarthrocacia, we find the nates much flattened during the lengthened state of the limb, and more prominent and firm than natural when it has become shortened. In some other affections that are accompanied with shortening of the limb, the nates are thinner and flatter than in the coxarthrocacia. The motions of the joint are tolerably free, and effected without pain, in the disease to which we first alluded; but, in the latter, the motion of the limb is restrained, and accompanied with pain, when it has made a little progress. In the natural mal-formation of the joint, the patient, in walking, places the sole of the foot on a level with the ground; whilst, in the coxarthrocacia, he is observed to tread on the toes only of the affected limb.

The *nervous sciatica*, so accurately described by Cotunni,† cannot be confounded with the coxarthrocacia, if the following diagnostic signs be attended to:—

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* *Adversaria Chirurgica*, i. 4.

† *Commentatio de Ischiade Nervosa.* Viennæ, 1770.

In the nervous sciatica, the pain is experienced in the hip, chiefly behind the great trochanter, and extends from the os sacrum, along the course of the sciatic nerve, downwards as far as the outer part of the foot: in the coxarthrocacia, the pain is not unfrequently wanting in the first stage of the disease, (a slight lameness and stiffness of the joint being alone experienced,) and, when it is present, it is generally referred to the upper and anterior part of the thigh, never extending in the course of the sciatic nerve, and frequently being confined to the region of the knee-joint. Sometimes the anterior femoral nerve is affected in the same manner as the sciatic: this may be recognized by the pain being increased by pressure in the course of the nerve, particularly where it issues from the pelvis under the fallopian ligament. The patient afflicted with sciatica becomes crippled, and cannot go about; but, in the coxarthrocacia, although he is affected with some degree of lameness, he can, in the first stage of the malady, move from one place to another with at least a moderate degree of activity. No alteration in the state of the soft parts in the region of the great trochanter can be observed in the sciatica; but this is not the case, as before stated, in the hip-joint disease. No stiffness of the joint, nor variation in the length of the limb, take place in the sciatica; or, if the latter does occur, it will be readily discovered to arise solely from obliquity of the pelvis. The pain in this complaint is also different from that in the hip-joint disease; it is not so deep-seated, and is frequently accompanied with spasmodic contractions of the muscles of the limb.

The affection we are considering may, however, be more readily confounded with *psoas abscess*, as those maladies have many symptoms in common. The flattened appearance of the nates in their first stages, and the subsequent tumefaction of those parts; the formation of abscesses, showing themselves about the upper part of the thigh; the lameness; the pain on extending the limb; and the particular uneasiness in the upright posture; are equally experienced in both diseases. The diagnosis may, however, be formed by an attention to the following circumstances:—

In inflammation and suppuration of the muscles about the loins, the patient complains of pain in the region of the affected parts, particularly in assuming the upright position of the body, or on extension of the lower extremities. We need not point out the dissimilarity between these symptoms and those arising from the hip-joint disease. The former complaint also runs its whole course without producing any uneasiness or change of structure in the region of the great trochanter, and the foot of the affected side cannot be turned outward without increasing the pain; whilst, in the hip-joint disease, the foot is in general turned more outwardly than in the natural state. In the latter stages of the disease, when abscess has formed, it will be found, in the affection of the psoas muscles, that a deep inspiration, coughing, hollowing, or the erect position, will be accompanied with a fluctuating swelling about the nates or the anterior part of the thigh; or, if the abscess has burst

externally or been artificially opened, an evacuation of matter from it will take place: these circumstances are not witnessed in the coxarthrocacia.

Rolfirck,* Peræus,† Overkamp,‡ Diemerbroeck,§ Schrader,‖ Moegling,¶ Wedel,** and several other authors, speak of a disease arising from the spontaneous separation of the head from the neck of the femur, which produces symptoms much resembling those of the coxarthrocacia; but Professor Rust says he has never himself witnessed such an occurrence; and the description given of it by the above authors is so various, that he, with Albers and Paletta, doubts of the reality of its existence. He thinks that some of them have mistaken a fracture of the neck of the femur, or the latter stages of coxarthrocacia, for the affection above mentioned. Should it, however, occur, the symptoms must, from what has already been stated, be so easily distinguishable from those of coxarthrocacia, as not to merit particular consideration in this place.

We pass over the history of *arthrocacia* as it appears in the other joints, because the account we have already given of it will be sufficient to lead to the knowledge of the disease in all its various situations; and, as we before stated, it is not our intention to give a complete analysis of the work of Dr. Rust, but merely such parts of it as are either particularly interesting, or tend to elucidate his particular theory of the nature of the disease. We must not, however, neglect to notice this morbid affection as it appears in the articulation of the atlas with the dentata vertebra, as it has not, until very lately, been treated of by any modern writer, and it is productive of some peculiar symptoms by which it may be distinguished in its early stages, when remedial measures are alone of any considerable utility. Professor Rust has witnessed thirteen cases of this species of the disease.

The patient at first experiences pain in the back part of the neck, which is more severe in the night, during wet weather, when he attempts to swallow very small portions of food, or on making a deep inspiration. After a certain length of time, the pain becomes more violent, when the head is inclined to one side. Powerful pressure with the finger about the union of the head with the neck is then found to excite a very disagreeable sensation, which points out the true nature of the disease. If it be now neglected, the difficulty of swallowing and respiration continue to increase, and the pain, which is concentrated about the occiput,

* Bonet *Analect. Pract.* lib. iv. p. 6. *Observ.* 2.
† Lib. xvii. cap. 22.
‡ *Chirurgia*, p. 894.
§ *Anatom.* lib. ix. cap. 16, 19.
‖ *Dissert. in Hippocrat. Aphorism*, sect. iv. 43; *in Illust. Aph.* 59.
¶ *Ephem. Nat. Curios.* cent. v. p. 220.
** *Exercit. Pathol. Therapeut.* p. 126.

becomes almost insupportable on the least motion of the head. The head now falls on one shoulder, and usually on the right one, because the disease most frequently affects the left side of the vertebræ in a particular manner. About this stage of the malady, the state of the patient becomes somewhat alleviated, the motions of the head are more free, and it even recovers in some degree its erect position. But this state is of but short duration. The pain in swallowing, speaking, and breathing, recurs; the head becomes inclined a little backward, or to the side opposite to its former position. The patient cannot obtain ease in any posture; and he can neither rise nor lie down without supporting his head with both hands. Paralysis of the upper extremities, loss of the voice, and hectic fever, then ensue; and a termination is soon put to the patient's existence. Nothing remarkable is generally observable externally: Professor Rust, in one instance only, witnessed a tumor in the situation of the diseased bones, which burst outwardly, and was followed by a fistulous ulcer. The expression of the countenance, in consequence of the pain experienced, is so peculiar, and in some degree characteristic of the disease, that the author has inserted in this work the portrait of a patient affected with it in its latter stage. We hardly ever witnessed so distressing a representation of the human visage: the fixed teeth, curled lips, obliquity of the eyes, contracted brow, rugous forehead, erect hair, and the sharp lines formed by the muscles in consequence of the state of emaciation, give to it an expression that the excellent artist (J. Giller), who executed it, has well displayed, but which cannot be effected by the powers of any language.

We shall pass rapidly over that part of the work devoted to the consideration of the treatment of arthrocacia, since the general measures advised by the author do not differ, except in the use of the actual cautery, from those so well pointed out by our own writers, especially by Mr. Brodie in his recent work on the Diseases of the Joints.

Professor Rust first treats of the general measures that are usually employed, amongst which he assigns the first place to blood-letting. The free application of leeches has, indeed, been sufficient to arrest the progress of the disease, when it has been of but short duration, or arisen from external violence, or when it appears to have been essentially connected with a plethoric state of the general system. He next considers the various internal measures that have been advised by different authors; as antimonials, sulphurous preparations, the extractum pampinorum vitis (recommended by F. Hen. Peter Frank), mercurials, the woods usually termed antisyphilitic, tepid baths, nitric acid, muriate of barytes, opium, aconite, digitalis, &c.; but we need not dwell on this part of the subject, as it is on the local treatment that the chief and only confident dependence should be placed.

In the first stage of the disease, the author has found leeches repeatedly applied to the surrounding parts, of great utility; after which, stimulating sinapysms, vesicatories, volatile liniments, a

particular preparation with which we are not acquainted (Autenrieth's *chen Brechweinsteinsalbe*), warm plasters of mastic and gum ammoniacum, &c.; but the author has found no measures so effectual at this period as mercurial frictions. After having relieved the severity of the pain by blood-letting, leeches, and warm baths, he advises the joint to be rubbed with mercurial ointment until the disease subsides, or the occurrence of salivation requires the discontinuance of the remedy. When the complaint has arrived at the second stage, a more powerful counter-irritation is necessary. The establishment of issues in the neighbourhood of the joint, Dr. Rust remarks, has been long considered as sufficient for this purpose; but numerous observations and long experience have proved to him that they but rarely produce the desired effect, and that they even accelerate the progress of the disease when exarticulation has taken place. He considers the actual cautery as entitled to a decided and eminent preference. But we need not dwell on that part of the work which relates to the use of this remedy, for we fear that popular prejudice would prevent its introduction into general practice by English surgeons, should they even be convinced, by the unanimous voice of the most eminent surgeons of the whole continent, that they have neglected the use of a powerful remedy for which there is no efficient substitute. We may, however, remark, that the same principles that are inculcated by our writers for the use of the caustic, are also applicable to the actual cautery. We cannot pass over this section of the present work without observing, that it contains such a full, explicit, and methodic account of all the different circumstances to be attended to in the use of the remedy, under every variety and form of the disease, and such numerous references to rich sources for information in other writers, as must render it a highly valuable possession to the practical surgeon.

When the disease has arrived at the third or fourth stage, a perfect cure can no longer be expected; we must then only endeavour to arrest the progress of the malady, to limit its deleterious influence on other parts, and favour, as much as possible, the efforts of nature to cicatrize the ulcers. The cautery is still, however, the best remedy; but, if the collection of matter is large, it will be necessary to evacuate it previously to the use of that application. The author here adduces some very judicious reflections on the treatment of abscesses in general, and on those connected with the joints in particular. He blames the custom of evacuating these collections by a small opening, under the pretence that the contact of air alters the qualities of the pus. It is not, he says, the contact of air, but the diseased state of the parts, that is the cause of the bad qualities of the pus; for, whether it be large or small, the opening will always give passage to air; and, when it is small, there is the disadvantage of a pouch being formed, in which the matter becomes collected, and air is confined and altered without the possibility of its renewal. To avoid the inconveniences that have been gratuitously attributed to too large incisions, it is

necessary to imitate the natural operations, in which an abscess never opens until the integuments covering it have acquired a state of inflammation proper to favour the prompt obliteration of the opening after the pus is evacuated. Professor Rust, therefore, advises, in the cases of abscess from collection of matter now under consideration, that a large incision should be made, so as to give immediate issue to the contained fluid; but that this should not be done until the skin and adjacent parts have been forcibly irritated by cauterization or other measures, so as to excite their vitality, and place them in a condition the most favourable to prompt adhesion of the divided parts.

We shall here terminate our analysis of this work, having somewhat exceeded our professed object, which was to give our readers a general knowledge of the most interesting of the novel opinions of the author, rather than to attempt to furnish a sufficient idea of the multitude of interesting observations, and the useful practical information which it contains.

An Essay on the Consequences of the more severe States of Child-Birth; by J. E. Fodéré, M.D. Professor to the Faculty of Medicine at Strasbourg.

"Notwithstanding the contests which still divide the accoucheurs of the different nations of Europe, it is certain that the department of the medical art which relates to the state of child-birth has not yet made any considerable progress. Every point of the head of the fœtus has been placed in opposition with those of the canal through which it must pass; the relative advantages and inconveniences of turning, and the application of the forceps, have been weighed; that instrument has been carried with a bold hand within the limits of the abdominal cavity, and it has recently received those modifications of its form, relative to the different degrees of inclination of the pelvis, which had been anticipated by Levret. Nothing, then, it would appear, should henceforth oppose the delivery of a woman by the ordinary means, whenever her conformation does not offer insurmountable obstacles to it. Besides, the means of preventing, to a certain extent, the extremities which have been resorted to under these serious circumstances, have already engaged the attention of the professors of the obstetric art; an object which will form the subject of a future memoir. Well! the woman is delivered, and favourably so, either by the powers of nature alone, or by the aid of vigilant art; yet she still must encounter considerable dangers: this dear object of the solicitude of a father, of a husband,—this mother, so happy in pressing to her breast the infant that had caused her such sufferings,—may probably perish within a few days. This spectacle, of which I have frequently been a witness, and which is so often renewed, even in those great cities that most pride themselves for

the possession of men of enlightened talents,* has always excited in my mind the most poignant feelings of distress, has irritated me against the inefficacy of the art, and determined me long since to observe with assiduous attention whatever appeared to presage, or might tend to avert, the occurrence of similar calamities. It is the general results of my labours that I now present to the public, not as a perfect production, but merely as advice to practitioners, to place them on their guard on such occasions.

I shall commence with some physiological considerations respecting the state of pregnancy and child birth, for it is thence I shall deduce all the observations of utility that I may have to propose; I shall treat of the principal maladies to which the woman in the latter state is subject, in consequence of her peculiar situation; I shall expose, in the third place, my sentiments respecting *puerperal fever*, its complications, and its appropriate treatment; I shall discuss, in an independent manner and from practical observations, the opinions that have been advanced respecting this serious affection; and, lastly, I shall endeavour to appreciate, by arguments also deduced from facts, the importance of those disorders commonly termed *milk-fevers*. I have a double object in the publication of this Memoir,—that of conferring some benefit on the most interesting part of human nature, and that of putting a stop to some ridiculous disputes now in agitation: may my labours and arduous efforts not be totally devoid of utility!

A very ancient prejudice, which has its source in the works of Hippocrates, where the uterus, pictured as an animal contained within another animal, is represented as travelling throughout the three cavities of the human body, attributes to that organ, even in the state of vacuity, the greater part of the maladies which afflict the female sex: thence the name *hysterics* given to convulsive affections, to which men are equally subject with women. It is nevertheless certain that the uterus exerts no activity on the general system, except during the time of gestation, and only makes itself an object of perception at the periods of menstruation, and by the organic diseases which are common to it with other parts of the body. But, as soon as a woman has conceived, then, indeed, this mute organ assumes a new life, which modifies it, and produces an influence on the whole existence of the individual.

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* Of about 20,000 deaths that take place annually in London, there are on an average 280 of women in child-bed: at the *Hospice de la Maternité*, at Paris, there is ordinarily the loss of one woman in twenty-five in that state; (*Compte rendu de l'Administration* in the *Journal de Médicine* of M. Leroux, Juin 1817:) of 717 women delivered at the Civil Hospital at Strasbourg, under the superintendance of M. Lobstein, we find 61 died; and, of 13 cases related of *puerperal peritonitis*, only three recovered; (*Observations d'Accouchemens*, &c. par J. F. Lobstein; pp. 56 and 57; Paris, 1817.) It must, then, be readily acknowledged, that, for a natural function, child-birth is too often a fatal one.

The dark circle round the eyes, the languishing look, the alteration of the traits and colour of the countenance, deranged appetite, nausea, vomiting, and other general changes which follow conception, indicate that the different functions are going to become subordinate to that which appertains to the preservation of the species. The uterus acquires, by conception, two active properties which did not previously exist in it, and which I willingly term, with M. Deneux, *animal sensibility*, and *sensible organic contractility*.* By the first, that organ enters within the dominion of pain, which the woman begins to experience as soon as the fœtus exerts considerable motion, and which will be still more acute at the period when its contractions are to effect its expulsion. By the second, the uterine tissue acquires the faculty of becoming rapidly very firm, then of spontaneously relaxing itself; and this alternately during a given time. But, besides this, it becomes susceptible, from the commencement of gestation, of a dilatation that it would not have been supposed capable to undergo, not a mere elongation of its tissue, as in diseases, but an active dilatation, —that is to say, which depends on augmented nutrition, on an addition of molecules, which permit that organ considerably to extend its limits without suffering a diminution of the thickness of its parieties. There results from this dwelling that nature forms for the new being from almost all the species of structure which constitute the human body, and from the increase of this being and its appendages, that the pelvis of the mother becomes a centre of fluxion, which draws all towards itself, and to which the greater proportion of the vital powers tend, very often to the injury of the rest of the economy. The same circumstances occur in the females of other animals as in women; but the latter, possessing a nervous system infinitely more extensive and more developed, is also much more affected and modified by the great change which then takes place.

Let us consider the circumstances which should particularly engage our attention, as those which constitute dispositions to disease during the period of child-birth. We may enumerate seven of particular importance:—1. The shock given to the bones of the pelvis. We believe, with many authors, from facts that have occurred to our observation, that, in every instance of labour, the head of the infant, engaged in the pelvis and propelled by the action of the expulsive powers, exerts on the sides of this cavity an effort that has a tendency to separate the different bones composing it, and which necessarily produces painful distension of the ligaments and cartilages, which obliges the woman to remain in a state of repose during a greater or less length of time.—2. The increased sensibility of the uterus and its appendages, and the disposition of those parts to inflammation. It is almost useless to

* We adopt the word *contractility*, as there existed no word in our language which conveys the same precise idea: *contractibility* has an absolutely different meaning.—Edit.

insist on this point. Although we have seen women, after a clandestine delivery, return immediately to their ordinary occupations, there is no one who will not acknowledge that the labour of child-birth must produce a painful state of the uterus and all the organs contained in the pelvis, and even of the abdominal muscles which have participated with the expulsive efforts; that the pressure of the fœtus on the soft parts will produce a state of them analogous to that from contusion in general; that this state of painful sensation will be greater in proportion to the frequency of the repetition of the uterine contractions, the largeness of the head of the fœtus, the length of time which the head may have rested in the pelvis, and the degree of violence with which it may have been wedged therein: it will also be more severe when the fœtus has been in a very languid state, or dead; and, lastly, in the first instance of parturition.—3. The degorgement of the uterus, which is effected, either by the contraction of the tissue of this viscus, producing the lochiæ, which is the ordinary result; or by the absorption of the fluids contained in its vessels, without the appearance of lochiæ, or at least a flow of them during one or two days only, which we have witnessed without inconvenience: the latter is a rare occurrence.—4. A disposition to hæmorrhage; which depends on an effort similar to those, as Stahl observed, which persons suffer that have been accustomed to sanguineous evacuations, and then, from some accidental cause, have them suppressed for a considerable length of time, and to which women of a sensible habit of body are very subject; or from a want of contraction, irritability, or contractility of tissue, a default that has been termed a state of inertia of the uterus.—5. The results of the pressure and distension that has been long exerted on the circumjacent parts during the development of pregnancy, which pressure and distension, independently of the affections relative to sensibility, have necessarily deranged digestion, caused the accumulation of fæcal matter in the intestines, and induced a painful state of those organs as well as of the peritoneum, and have given rise to a stagnation of matters ordinarily excreted with more or less promptitude.—6. The general disturbance of sensibility which the endurance of the pains of labour has produced. Although women may be somewhat fortified by example, they cannot but consider that parturition exposes them to much danger. Many, during the whole period of pregnancy, are occupied in the contemplation of the hazard they have to undergo, and, in the midst of the sufferings of child-birth, feel certain that it will prove fatal to them. Besides, although we, in our books, very quietly give the name of a function to parturition, it is not less true that it is a very painful and difficult action, even to a person of ordinary sensibility. It may be compared in many instances, as several respectable authors have already done, with the commotions arising from severe mental impressions, extensive wounds received while influenced by violent passions, or the more severe surgical operations which are submitted to under a full conviction of the

dangers about to be encountered.—7. The lymphatic diathesis, which is established towards the termination of pregnancy, and continues after the birth of the infant, and the influence of which is particularly directed to the breasts by means of a revolution in the animal economy very troublesome to many women, and which almost always excites an attack of fever, the occasion of the development of severe diseases peculiar to this state.

The concourse of those severe circumstances places the woman in child-bed in a particular state, different from that of any other situation. Daily observation evinces, at least in practice in cities, that sensibility is then excited to its highest degree of exaltation, and that a thousand impressions, formerly indifferent, or followed by only moderate sensation, may then produce the most serious effects; that a woman, previously mild and reasonable, becomes then irascible and outrageous on the most trifling occasions; that the frustration of the desires of the mother relative to the sex of the infant has caused syncope, convulsions, and other alarming symptoms; that improper diet will readily produce gastric fever; that the impression of cold air often causes catarrhal affections of the whole of the mucous membranes; that if, during pregnancy, the progress of many chronic diseases with which the woman may have been affected, has been suspended, child-birth furnishes an occasion for their more rapid development; and that, above all, it is seldom that women in this state escape epidemic maladies,—so that their situation is a favourable condition for the reception of the febrile element of the wards of an hospital, even when these causes are not sufficient to affect persons in general, and it is from this that hospitals are so frequently fatal to lying-in women. In some years we observe epidemic diseases that affect them exclusively. Acute disorders display in them symptoms of severity that are not common to the respective affections, and almost all fevers assume a degree of intensity, an irregularity in their course, and a nervous and typhous character, which every instant disconcert the practitioner, and prevent any calculation respecting crisis or critical days. Now, should not a state that resembles no other, which has its peculiar phenomena, which engenders maladies that appear in no other condition of life, be designated by a particular name? I think it has been thus considered by some really observant physicians, who have termed it the puerperal state, or *puerperality*; a denomination which should be preserved, and which I shall employ in this Memoir.

As I must here confine myself to the principal dangers present during puerperality, I shall refrain from the deduction of a detail of the consequences which the circumstances above enumerated present for the cautions that should be taken in the management of women in child-bed. My intention is to make some remarks, in the first instance, on the inclination to hæmorrhage, and on that singular disposition to mania which women experience after delivery. I shall afterwards treat more particularly on puerperal

fever, and on the explanations that have been given of the nature of that disease. The examination which I shall make of this fever, from a view of its symptoms, its terminations, and the considerations already stated, will serve, I hope, to determine the ideas that should be adopted respecting it, and will explain the cause of the sudden death of so many women in child-bed in the midst of the most favourable expectations. I shall reserve, for the termination of my labour, the circumstances which relate to the seventh circumstance of puerperality.

I have already pointed out the two principal sources of those alarming and often fatal losses of blood, independently of those which are owing to the rupture of a vessel, or to the retention of some portion of the placenta in the uterus; the latter are cases of more rare occurrence, and are more easily remediable. It is not immediately after delivery that this loss is most to be feared; there is at first only a moderate evacuation; but it is some hours after, when a state of calmness has succeeded to the state of commotion that the woman had experienced: it is most frequently even during the first sleep, of which she appears so much in need, and which, nevertheless, we are obliged to interdict when we are in doubt respecting the probability of such an occurrence; at least, if the patient be not extremely exhausted.

The hæmorrhagic efforts, of which I have already spoken, and of which the consideration seems to be generally neglected, appear to me to be as frequent a cause of loss of blood as the inertia of the uterus formerly described. We should always fear them in women of a strong and vigorous habit of body, accustomed to the free use of wine, aromatics, and a luxurious regimen, as well as those who have habitually lost much at their periodical evacuations, and who have a disposition to hæmorrhages. The occurrence of them is imminent, when we witness a universal spasmodic contraction, when the patient complains of shivering and her pulse is accelerated, and when the quantity of blood evacuated is not in proportion with the natural flow of the lochiæ. Sleep favours this species of hæmorrhage, as well as some other disorders, in a very remarkable manner. We know that it is during this state that the menses begin to appear each month in the greater number of women; and I have constantly observed, in those who have never gone the full time of pregnancy, that it was during sleep, and after midnight, that abortion took place in consequence of spontaneous hæmorrhagic efforts.

We must fear the loss of blood from inertia of the uterus, when patients have borne a great number of children; when they have experienced, during gestation, either depressing moral affections, hæmorrhages, or long diseases; when the expulsion of the fœtus and its membranes has been too prompt; and particularly when the uterus does not assume the globular form, and the orifice of that organ remains soft and dilated. Sleep is not less dangerous in this state, because of its sedative and relaxing effect, and the woman has need of the excitation of wakefulness, united to the

assistance of art, to induce the necessary contractility of the uterus, without which the life of the patient would flow away with her blood. This is, perhaps, one of the cases where, in adding some degree of power to the natural efforts of parturition, (as Puzos observed,) that we may preserve in the uterus that faculty for contraction that is so necessary a circumstance to the welfare of the patient.

The therapeutics of the first species of hæmorrhage requires the preservation of an ancient custom established for its prevention, and active measures for its suspension when it occurs; that is, we should, to fulfil the first indication, bleed plethoric women when the epoch of labour is about to approach. We should expose her to great danger during the hæmorrhagic effort, if we took the effects for those arising from the want of contractility. I have seen, in such a case, the plug, which an ignorant practitioner had applied, expelled with force by a new flow of blood, red, warm, and concrescible; when two copious blood-lettings from the arm, which I afterwards had practised, in spite of the disapprobation of the attendants, cold-water acidulated with lemon-juice taken as drink, and repose, placed the life of the patient out of danger. I have, on the contrary, employed the plug with success in the second species, when frictions, injections, and affusions of cold water, and acidulated drink, had been of no service. The plug acts here not so much in an express mechanical manner, as by producing constant irritation of an organ that has not yet lost all its sensibility.

It is not only by the loss of blood that these hæmorrhages are dangerous, but also by the fevers of an ill character that they dispose the patient to contract, in consequence of the extreme debility into which they are plunged, and from which they therefore encounter a double risk. I was called, in 1811, to Marseilles, to the wife of a mason, the mother of several children, who was in the ninth month of pregnancy, and had suffered a considerable loss of blood during several days. She was pale, exhausted, and her tongue even was colourless and without warmth. Having, by examination, discovered that the orifice of the uterus was dilated, the placenta separated and lying near the orifice, I sent to request the assistance of an able accoucheur of the city, Dr. Giraud Saint-Rome; who, after having recognized the same circumstances, delivered the woman by turning, without retracting his hand. The hæmorrhage ceased; but it returned after the lapse of a few hours, and showed itself from time to time, notwithstanding our endeavours to prevent it. No determination to the breasts ensued, and, instead of milk fever, all the symptoms of putrid fever supervened. We determined to employ ipecacuanha, according to the method of Doulcet, less as an evacuant than as an excitant of the whole system. The patient took it, at short intervals, during several days. The first occurrence of vomiting caused a cessation of the sanguineous evacuation. The danger continued great until the third day, and the fever did not subside before the fiftieth, at

which time the woman was in a state of convalescence. Two years afterwards, during a short stay that I made at Avignon, I was called in consultation on the case of a young woman, of a robust habit of body, and naturally of a violent disposition. She had been delivered ten days, had suffered a considerable loss of blood that the medical attendants had not been able to suppress, and was then attacked with putrid fever. They had followed the method of Doulcet, and also administered purgatives; but the aspect of the patient, the antecedent circumstances, and the appearance of the blood evacuated, announced the existence of hæmorrhagic efforts rather than a state of inertia of the uterus. New measures appeared to arrest the progress of the disease for some time; but I learned, after my departure, that the woman had fallen a victim to the malady: so true it is that the nature of sanguineous effusions should be distinguished, and that it is necessary to stop them without delay by proper treatment, to preserve the patient from the dangerous febrile affection that often follows them in the state of puerperality.

(To be continued.)

MEDICAL AND PHILOSOPHICAL INTELLIGENCE.

ROYAL SOCIETY.—January 14, a paper on the *Corpora Lutea* was read by Sir EVERARD HOME. We shall at present state the principal facts related by the author, deferring the particular consideration of his Memoir until it shall be published in the Transactions.

The ovarium is loose and open in its texture previous to the age of puberty, when it becomes more firm and compact, and the corpora lutea make their appearance. In the cow, those bodies form a mass of convolutions, which Sir Everard compares to those of the brain. The ova are then formed in the lutea before and independently of sexual intercourse, but impregnation is necessary to their expulsion; and, on that taking place, they burst by extravasated blood; their cavities, after the escape of the ova, being always found distended with coagulated blood.

Royal College of Surgeons.—Feb. 15, the annual *Hunterian Oration* was delivered by Mr. ABERNETHY. It would be as impossible to give an adequate view of its scientific relation, as it would be to convey the most remote idea of its oratorial excellence, from mere auricular intelligence; and we are pleased to find that we may be spared the attempt, as it will shortly issue from the press: when in that form, we shall introduce it to our readers.

An Improvement in the Form of the Catheter.—An alteration from the ordinary form of the catheter, the idea of which would appear to be derived from Mr. Charles Bell's sound, that, from opinion, would appear to be of practical utility, has been proposed by Dr. M'Sweeny.

"This catheter," says Dr. M'S. "is twelve inches long; it has a bulbous extremity, and the rest of it is small in proportion to the bulb. There is a pyriform depression at the extremity of the bulb, in which depression the perforation is. The stilet is about an inch or more longer than the catheter, and has a pyriform knob at one extremity to correspond exactly with the depression at the end of the bulb. The other end of the stilet is not furnished with a ring. The stilet is put into the catheter at the bulbous extremity, and the pyriform knob fits the depression so exactly, that the catheter appears to have no orifice for the urine to escape. The stilet being about an inch longer than the catheter, it can be pushed up when the catheter is introduced. The act of pushing up the stilet will make the pyriform knob at its extremity rise out of the depression in the catheter, and the urine will flow freely out. The full flow of it may be suddenly stopped by pulling down the stilet to its former situation. In cases of calculi, the act of pushing up the stilet may be of service in keeping away concretions from the neck of the bladder when the urine is flowing."

The unpleasant effects sometimes,—that is, in cases of great irritability of the urethra,—arising from the roughness of the sides of those catheters which are perforated near the extremity with several small holes, and the insinuation of the membrane of the urethra into the calibre of the instrument, in those which have one large opening near the point, Dr. M'Sweeny also observes, will be thus avoided. The peculiar good properties of Mr. Bell's sound will, it is obvious, be also possessed by this instrument.*

The *high operation* for the stone in the bladder has recently been introduced into practice at Paris, by M. Souberbielle, with extraordinary success; such, indeed, as should draw the serious attention of surgeons again to this mode of operating. It was performed twenty-seven times by M. S. in the space of one year, on male subjects, of from fifty to eighty-six years of age, except in one instance, where the patient was only fifteen. The operations were executed according to the method of Friar Cosmo; making the incision in the bladder from within outwardly, without having previously distended it by injections or retention of the urine. Mr. Carpue witnessed this operation twice at Paris, and is said to think very favourably of its propriety in many cases.

The same method of performing lithotomy was a few months since performed at St. George's Hospital, by Sir Everard Home,

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* Catheters of this kind may be obtained from Still, surgical instrument maker, Leicester-street.

with the most favourable results, on a boy seven years of age: but, as some of the minor steps of the operation were effected in a peculiar manner, we shall detail the principal circumstances respecting it.

A sound was first passed into the bladder; an incision was then made into the membranous part of the urethra, and a director introduced into the bladder; when the staff was withdrawn. A bistoire cachée, somewhat in the form of a catheter, was then introduced along the director; when the latter was removed, and the bistoire carried upwards until it pointed at the superior and anterior part of the bladder. An incision was made through the external integuments on the point of the bistoire, but which was not continued into the bladder: the division of the latter was effected by thrusting forward the cutting part of the bistoire cachée, so that its point passed out through the opening already made in the external integuments. The wound was then enlarged downwards by a common probe-pointed bistoury, fitting a groove in the bistoire cachée. The stone was encysted, and it was necessary to separate it with the finger before the application of the forceps. A catheter of elastic gum was then passed through the lower opening into the bladder, and retained there, to prevent accumulation and extravasation of the urine, until the superior wound had healed.

Mode of checking Hæmorrhage consequent on the Extraction of Teeth.—Mr. Cullen, of Sheerness, recommends the following method for the treatment of the above frequent, and sometimes serious, accident:—

"Take a small, fine, vial cork, of a size adapted to the socket whence the tooth has been extracted and the hæmorrhage proceeds. Then, with a small dossil of lint, wet with aqua styptica, and put on the smallest end of the cork, push the cork into the bleeding orifice, pressing it firmly in, till it be, as it were, wedged in the socket; and keep it there as long as may be necessary, desiring the patient to press against it with the teeth of the opposite jaw till the bleeding be stopped, which it is almost instantly. This acts as a tourniquet, and gives you time to use whatever other means you may deem requisite; but it is seldom that any thing else is required."

We expect much valuable addition to our knowledge respecting *materia medica*, from a convention that has been made by the principal physicians of the United States, for the purpose of forming *an American Pharmacopœia*. The several Colleges of Physicians and Surgeons, Medical Schools and Societies, have united in the undertaking; and it has been determined that a convention should be held in each of the four grand divisions of the United States, to be composed of delegates from the colleges, &c.; that each district convention should form a Pharmacopœia, and elect

delegates to meet in general convention in the city of Washington, on the 1st of January, 1820; when the general convention will proceed to form the national work from the district convention Pharmacopœias. The different regions of the United States produce many indigenous plants, possessing powerful and important medicinal properties, which merit being more generally known, and more attentive examination, than they have hitherto obtained; and we feel much pleasure in perceiving that such an object has been undertaken in a manner that promises to be productive of so much general benefit; which cannot fail to be the case when superintended by such men as Drs. Mitchell, Hosack, Rodgers, Stearns, Watts, Beck, Spalding, Post, and Stevens.

The formation of a *Code of Medical Ethics*, or institutes and precepts for regulating the professional intercourse and conduct of physicians and surgeons, (to be effected by the same regulations as those proposed for the Pharmacopœia,) has also been proposed; from considering that it would be a mean of exalting the medical character of their country, and have a tendency to prevent frequent misunderstandings among medical men in their professional intercourse.

Some Observations on the alliaceous Odour of White Arsenic; by Dr. PARIS.*—After the various controversies upon the subject of arsenical tests, it is not a little singular that the discordance which exists in the different chemical works of authority, upon one of the most important characters of arsenious acid, should have escaped animadversion. *Does the arsenious acid, when volatilized, yield any alliaceous or perceptible odour?* The fact is, that, unless the arsenical vapour be deoxidized by the presence of some body which has a powerful affinity for oxygen, it is perfectly inodorous, the alliaceous, or garlic-like, smell being wholly confined to *metallic* arsenic in a state of vapour: such a deoxidation takes place when the arsenious acid is thrown upon ignited charcoal, or when heated in contact with those metallic bodies which readily unite with oxygen,—as *antimony, tin*, &c. It is stated by Orfila, and other chemists, that, if it be projected upon heated copper, the alliaceous odour is evolved. This certainly takes place if the copper be in a state of ignition; for, at that temperature, its affinity for oxygen enables it to reduce the arsenious acid: but, if a few grains of this substance be heated on a plate of copper, by means of a spirit-lamp or a blow-pipe, no odour is perceptible; for the whole of the acid is dissipated before the copper acquires a sufficiently exalted temperature. If the arsenious acid be heated on a plate of zinc, the smell is not evolved until the zinc is in a state of fusion. "If, instead of these metals, we employ in our experiments gold, silver, or platina, no alliaceous smell whatever is produced."

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* *Journal of Science and the Arts*, No. xii.

THE *Cancer Institution* is removed to No. 28, Gerard-street, Soho; where Mr. SAMUEL YOUNG, the surgeon to that Institution, now resides, for the purpose of more perfectly fulfilling the objects of that establishment; as he will thus be enabled to illustrate the Lectures, which he will shortly deliver on that disease, by cases on the spot, and also furnish students with ample opportunities of witnessing the appropriate application of the compress and roller, and of acquiring themselves an ability to employ them with the necessary accuracy. We may now hope to see the beneficial influence, which was expected to arise from that Institution, more precisely determined. We shall give our readers further notice of these lectures, and, perhaps, be enabled to supply them with some clinical reports on this subject.

Prize Questions.—"*Is there any doubt respecting the existence of idiopathic fever?*" is a question proposed by the Medical Society of Paris; for the best reply to which, a prize of the value of 300 francs will be awarded in December 1819. The Memoirs are to be written in French or Latin, and sent (free of expense) to M. NACQUART, the general secretary of the Society, Rue Sainte-Avoie, No. 39, before the 1st of November.

One of the questions proposed the last year by the Medical Society of Paris—"*To determine the nature, causes, and the treatment, of internal hæmorrhages from the uterus, arising during pregnancy, in the course of parturition, and after delivery,*"—not having been treated in a manner perfectly satisfactory to the learned commissioners appointed to examine the Memoirs, is again proposed for the current year. The premium, and other circumstances respecting the mode of proceeding in order to contest it, as above.

The Medical Society of the Department of the Eure has proposed the following:—"*To determine the nature, character, causes, differences, and the treatment, of ascites.*" The prize consists in a gold medal of the value of 200 francs; and a silver medal will be presented to the author of the Memoir which shall be considered next in value to the former. The Memoirs, written in French or Latin, are to be sent (free of expense) to M. L. H. DELARUE, Pharmacien à Evreux, secretary of the Society, before the 1st of August, 1819.

THE great mass of recent medical publications from different parts of the world, now before us, yet unnoticed in our Journal, amongst which are several works on subjects of the highest interest and practical importance, obliges us to point out, in a general way, to our readers, some of those which are worthy of their attention, but of which (at present, at least,) we cannot give a regular analysis. We desire it to be understood that, although in the critical department of our Journal our notice of works will bear a rela-

tion to their chronological order, yet, on occasions like the present, we must select for immediate consideration those that appear to contain matter of the greatest novelty and direct practical importance.

We shall first point out a translation of the excellent article on *Gout*, in the Dictionnaire des Sciences Medicales, by M. GUILBERT, to which a sort of commentary is added by the translator.* This is a valuable addition to English medical literature, as it contains some observations and remarks of importance, in addition to those contained in our latest and best original work on the subject—that of Dr. SCUDAMORE.

The eagerness with which biography of eminent persons is universally perused, has produced many prolix disquisitions from speculative observers: some attributing it to the gratification of curiosity; others, to sentiments forming the principles of Hobbism; and a third class, perhaps more properly, to the excellent theme it affords to the text of Horace:—

> "——simul et jucunda et idonea dicere vitæ,
> Lectorem delectando simul atque monendo."

This union of agreeable with useful information is particularly evinced in the Memoirs of the living Members of the London College of Physicians; and the general interest they have excited appears to have been consonant with the real importance of the subject, since a second edition of those Memoirs has already been required.† A choice selection of medicinal formulæ, collected apparently both from their public and private practice, is added to the present edition, which will render it of increased value to professional readers; especially to those who, either from want of accurate knowledge in chemistry or practice in the art of prescribing, require a guide to direct them in the mode of exhibiting active remedies with safety and precision.

Second editions of Dr. ARMSTRONG's works on *Scarlatina*, *Typhus*, and *Puerperal Fever*, have also recently appeared, which contain some useful additional observations, and a further development of the author's opinions.

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* *Practical Researches on the Nature, Cure, and Prevention of Gout, in all its open and concealed Forms; with a Critical Examination of some celebrated Remedies and Modes of Treatment employed in this Disease.* By JAMES JOHNSON, Esq. Surgeon to his Royal Highness the Duke of Clarence; author of the "Influence of the Atmosphere on the Health and Functions of the Human Frame," &c.—8vo. pp. 105. Highley and Son, 1818.

† *Authentic Memoirs, biographical, critical, and literary, of the most eminent Physicians and Surgeons of Great Britain; with a choice Collection of their Prescriptions, an Account of the Medical Charities of the Metropolis*, &c.—8vo. pp. 562. Second edition, enlarged. Sherwood and Co. 1818.

A translation of ORFILA's Elements of Chemistry is also an useful addition to the English medical library.* This work will be comprised in two volumes, the first of which has only hitherto appeared, which treats of mineral chemistry. The second will consist of the chemistry of animal and vegetable substances, and will contain a number of new and highly interesting experiments.

We would especially direct the attention of our readers to a work called *British Field Sports*,† because of the observations and judicious remarks that it contains respecting the *diseases of dogs*, especially the *rabies* of that animal. We need not point out the importance of knowledge on this subject to medical practitioners, since a little reflection will render it obvious to those who may not already be convinced of it. The parts of the work to which we have alluded possess forcible claims on their attention, since, if Mr. BLANE's Treatise be excepted, there did not previously exist a scientific history of the diseases of the dog and their appropriate mode of treatment. Some of our country readers, who have good horses, vigorous health, and leisure, and who are inclined to the study of nature and the habits of animals as well as of books, will derive from this work a species of information and pleasure that they can hardly anticipate. It evinces great accuracy and extent of observation, and a philosophic disposition of mind in the learned author.‡

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* *Elements of Modern Chemistry; comprehending the latest Discoveries which have been made in this Branch of Science; principally for the use of Students.* By M. P. Orfila, Quarterly Physician to his Majesty Louis XVIII. &c.; improved by the addition of a copious Index and Glossary. Illustrated by plates. 2 vols. —8vo. Cox and Son, 1819.

† *British Field Sports; embracing Practical Instructions in Shooting, Hunting, Coursing, Racing, Cocking, Fishing, &c.; with Observations on the Breaking and Training of Dogs and Horses,* &c. &c. By WILLIAM HENRY SCOTT.—8vo. pp. 605. Sherwood and Co. 1818.

‡ We suspect W. H. Scott to be a fictitious name: the peculiar originality of manner evident in this work would lead us to attribute it to a gentleman already well known to the public by his zoological treatises. It is somewhat remarkable that two of the English works that have been read with the greatest pleasure were published under fictitious names; and we doubt not but that sportsmen will peruse British Field Sports with as much delight as metaphysicians, critics, and moralists, have enjoyed in the contemplation of the *Anatomie of Melancholie* and *Tristram Shandy*. If Mr. J. L. be the author of this work, we do not see why he should not acknowledge it: an excellent philosopher, who was also one of the greatest generals of ancient Greece, did not consider the same subject unworthy of his pen; and BACON treated of the arrangement of a garden amongst the matters comprised in his immortal *Essays*.

On speaking of the diseases of brute animals, we must not neglect to point out, as worthy of the attention of our readers, the Treatise of Mr. WILKINSON on Tetanus, and the epidemic catarrhal disease affecting horses.* But this work, from the peculiar interest of its principal subject with respect to medicine in general, which is treated in a manner that forcibly evinces the benefits that will ensue from the establishment of the Veterinary College, will engage our particular attention at a future period. We shall at present, however, observe, that a preternaturally dark appearance of the spinal marrow, and signs of inflammation of its membranes and of those of the brain, were discovered on dissection after death in several instances.

The first part of the work of Professor MECKEL on *Pathological Anatomy*† will be contemplated with peculiar interest. It is a work deduced from the labours of half a century, and will comprehend all the natural and acquired derangements of figure, as well as *intimate structure*, that have come under the observation of the author. Much additional light will probably be thrown on this subject, by the collation of deviations from the ordinary state of the organs of the human body with analogous appearances in brute animals; an object that the Professor's favourite pursuits will enable him to accomplish in an able manner. We shall transcribe the following description of a species of deviation from the natural structure of the heart, of frequent occurrence, which will be interesting in itself, and serve also as a specimen of the author's mode of description:—

"Cor est juvenis 14 annorum, morbo coeruleo exstincti. Valvulorum septum nullo modo, ventriculi contra ipsi summopere à norma recedunt. Sinister cum aorta infra solitam capacitatem contractus, dexter contra una cum arteria pulmonali summopere dilatatus. Vitium primarium in parte cordis venosa hæret, ubi foramen ovale modo fere inaudito apertum vides. Memorabile, quod valvula Eustachiana s. foraminis ovalis *anterior* fere omnino evanuerit. Ex cordis sinistri atque aortæ contractione, dextri contra et arteriæ pulmonalis summa dilatatione valvulæ Eustachianæ habitu depauperato, et singulari valvulæ foraminis ovalis s. valvulæ f. o. posterioris quæ itidem minimæ est haud sursum spectat, foraminis ovalis fundo infixa, sed, ejusdem ambitus parti sinistræ adhærens, margine libero, concavo dextrorsum vertitur, recte, ni fallor, in

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* *A Treatise on two of the most important Diseases which attack the Horse—Locked Jaw and Tetanus, and the Epidemic Disease, or Catarrhal Affection*, &c. &c. By William Wilkinson, Veterinary Surgeon, of Newcastle.—4to. pp. 212. Longman and Co. 1818.

† *Tabulæ Anatomico-Pathologicæ, modos omnes quibus partium Corporis Humani omnium forma externa atque interna à norma recedit, exhibentes.* Auctore, J. F. Meckel. Fasciculus primus. Cor. cum Tab. viii. fol.—Lipsiæ, apud Gleditsch; et Londini, apud Treuttel et Würtz, Soho-square.

hoc casu sanguinem haud ex cavo cordis dextro in sinistrum, sed via contraria, ex sinistro in dextrum transiisse, concluserim."

We must also point out as one of those to be, at least temporarily, set aside, but which, at the same time, we must particularly urge on the attention of our readers,—the work of Dr. WENZEL on the diseases of the uterus ;* which, although it does not contain any very important novelties of observation or opinions, yet it will be a valuable addition to the library of the physician; especially to that of those much engaged in the treatment of the diseases of females. The principal morbid affections of the uterus, particularly those from altered structure, are treated in a full and judicious manner. The sections, "Prufung den Heilversuche der Induration und des carcinomates geschwenigen Zustandes an dem Uterus," and "Prufung den Heilversuche der Induration und des carcinomates geschwenigen Zustandes an dem Uterus, durch die anwendung ausserlich und innerlich gebranckter azneikorper," are evidently deduced from the results of long experience and very extensive observation. The work is illustrated by twelve copper-plate engravings, and as many outlines only of the same figures, executed in a manner that shows the utmost extent to which graphical representation of morbid anatomy can be carried. But we do not consider that these contribute in any considerable degree to the value of the work ; since all attempts to convey adequate ideas of animal structure, and to supply the want of morbid dissections, are totally futile.

We would direct the attention of our readers to a French translation of the Treatise of Mr. HODGSON on Diseases of the Arteries and Veins ;† for, at the same time that it shows the liberal spirit of our neighbours, worthy of more general imitation, they will find in it much additional information, of considerable value, in the notes of the translator. We shall shortly furnish our readers with some of the results of the researches of this distinguished anatomist and physiologist, when we take into consideration an original Memoir which he has himself published on Inflammation of Veins.

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* *Uber die Krankheiten des Uterus;* von CARL WENZEL, der arznei und Wundarzneiwissenschaft Doctor, &c. &c.—Mainz, bei F. Kupferberg; und London, bei Treuttel und Würtz, Soho-square. 1816. Fol. pp. 290. Mit Zwölf Kupfer und eben so vielen Linear tafelu.

† *Traité des Maladies des Artères et des Veines, &c.; traduit d'Anglais, et augmenté d'un grand nombre de Notes,* par GILBERT BRESCHET, Docteur en Médecine, Prosecteur à la Faculté de Médecine de Paris, Premier Aide de Clinique Chirurgicale à l'Hôtel Dieu, &c. &c. 2 tom. 8vo.—Paris, 1819; et se trouve à Londres, chez Treuttel et Würtz, Soho-square.

REPORT OF DISEASES.

IT was observed by SYDENHAM, that "cold destroys a much greater number of mankind than the combined ravages of war, famine, and pestilence;" and it is from conviction of the truth of this statement, that the physician feels the weight of his cares somewhat alleviated, now that the season has passed away in which that cause of destruction especially exists. But, whilst the temperature of the atmosphere is below 60° or 65°, there are frequent and numerous states of the system in which cold will act directly as a morbific cause on the animal economy. We have, therefore, yet occasion to witness the prevalence of diseases arising from this agent. This has been observed during the late period especially in children, amongst whom inflammation of the respiratory organs has been of frequent occurrence, and has commonly appeared in the form of *croup*. We need not now dwell on the ordinary nature of this disease, since it occupied our attention in the last Report. But there is an affection evincing several of the characteristics of that malady, which some authors have termed spasmodic croup, which occurs during the prevalence of the former, but differs from it in not being accompanied with symptoms so decisively indicative of the existence of inflammation, and in not often proving fatal in its termination. We have been induced, from repeated observation at different periods, to attribute many cases of this affection to the influence of the imagination. The whole of the rest of the children of the same family are not unfrequently affected in this manner simultaneously, within a few days after one of them had fallen sick of croup, under circumstances which has commonly led the parents to suppose the affection to be contagious; from the latter subjects of it not having been exposed to cold, but when, on the contrary, from the alarm excited by the illness of the first patient, they have been cautiously confined to a warm room: but this, it must be remarked, has been that of the former patient. This affection has commonly been observed in delicate children of great sensibility and irritability of habit, or, as it is frequently termed, of the scrofulous diathesis, because they are also particularly disposed to that form of disease. The above-mentioned notion will, probably, appear devoid of solid foundation to many persons, particularly to those who have not had extensive opportunities for witnessing the diseases of children, and who have not diligently perused the works of the best of the older authors, which are full of instances of the powerful influence of the imagination of children in the production of various species of disease. The ancients, from the time of ASCLEPIADES, who first urged its importance, paid great attention to the influence of the mind, as a cause as well as a remedy of disease: but physicians of the present age have almost entirely resigned such views of pathology and therapeutics to empirics. Whether what has been stated, or particular habit of body, be the cause of it, it is certain that there is a form of croup, unaccompanied either with fever, much general excitement, expectoration of viscid phlegm, or inflammatory redness about the upper part of the pharynx; and in which *the respiration is more free and less shrill and sonorous during sleep* than when the patient is awake; which may be relieved without having recourse to blood-letting, and the other general sedative measures mentioned in the last Report. These cases have usually been promptly removed by counter-irritants; as the application of *hot* water to the feet, purgatives of calomel and jalap, a vesicatory to the throat, and as much ipecacuanha as could be borne without causing vomiting.

We are induced to believe that the above etiological remarks are also applicable, under certain circumstances, to *phthisis*; but on this point we shall quote the opinions of a philosopher, whose works merit a place in every medical library, from the great number of interesting facts and re-

flections they contain respecting the influence of the moral on the physical phenomena of the animal economy.

"Simon Thomas," dit MONTAIGNE, "estoit un grand medecin de son temps. Il me souvient que me rencontrant un jour à Thoulouse chez un riche vieillard pulmonique, et traitant avec luy des moyens de sa guerison, il luy dist, que c'en estoit l'un, de me donner occasion de me plaire en sa compagnie; et que fichant ses yeux sur la frescheur de mon visage et sa pensée sur cette allegresse et vigueur, qui regorgeoit de mon adolescence; et remplissant tous ses sens de cet estat florissant en quoy j'estoit lors; son habitude s'en pourroit amender: *Mais il oublioit à dire, que la mienne s'en pourroit empirer aussi*"—(*Essais*, liv. i. chap. 20.)

Thoracic disorders in adults evince the same characters as those noticed in the last Report; which remark will also apply to the generality of the diseases to which they are at present especially disposed.

We need make no particular observations respecting *typhous fever*, as there is nothing remarkable in its present character, and we fear is not more prevalent than it will ever be in our metropolis.

Whooping-cough is of rather frequent occurrence amongst children. Except in a few cases, this complaint may, in the delicate habits of children educated in the city, be safely, and indeed most effectually, treated by counter-irritants. It has generally been found that the internal exhibition of ipecacuanha with rhubarb or jalap, and the production of a rash on the surface of the chest by means of the tartar-emetic ointment, has soon removed this disease. The tartar-emetic ointment is preferable to any of the stimulating embrocations usually employed; such as oil of amber, tincture of cantharides diluted, volatile alkali, &c.

MONTHLY CATALOGUE OF MEDICAL BOOKS.

An Essay on the Diseases of the Excretory Parts of the Lachrymal Organs; by William MacKenzie. 8vo. 4s. 6d.

Aphorisms, illustrating natural and difficult Cases of Labour, Uterine Hæmorrhage, and Puerperal Peritonitis; adapted to the use of Students; by Andrew Blake, M.D. 8vo. 3s. 6d.

The Quarterly Journal of Foreign Medicine and Surgery, and of the Sciences connected with them. No. II. for February 1819. 8vo. 3s. 6d.

Observations on Contagion, as it relates to the Plague and other Epidemic Diseases, and refers to the Regulations of Quarantine; by a Physician. 8vo. 2s. 6d.

An Essay on the Diagnosis between Erysipelas, Phlegmon, and Erythema; with an Appendix, touching the probable Nature of Puerperal Fever; by G. H. Weatherhead, M.D. &c. 8vo.

Further Observations on the Internal Use of the Hydro-cyanic (Prussic) Acid in Pulmonary Complaints, Chronic Catarrhs, Spasmodic Coughs, Asthma, Hooping Cough, and some other Diseases; with full Directions for the Preparation and Administration of that Medicine. By A. B. Granville, M.D. F.R.S. F.L.S. M.R.I. &c. 8vo. 4s. 6d.

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Observations on the Inflammatory Endemic incidental to Strangers in the West-Indies from temperate Climates, commonly called the Yellow Fever; as this Disease occurred to the Writer during a public Service of twenty Years in a majority of the West-India Colonies. By Nodes Dickinson, of the Royal College of Surgeons, &c. 8vo. 8s.

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METEOROLOGICAL JOURNAL,

By Messrs. William Harris and Co. 50, Holborn, London.

From the 20th February to the 19th March, 1819, inclusive.

Day of Month.	Moon.	Rain gauge	Therm.			Barom.		De Luc's Hygrom. Dry	De Luc's Hygrom. Damp	Wind.		Atmospheric Variation.		
Feb.														
20			41	45	40	29·79	29·81		10	11	W	W	Fine	
21			43	47	40	29·80	29·78		12	13	WSW	W va.	Fine	Rain	Clo.
22			42	46	35	29 86	29·97		11	13	N	SW	Fine	Rain	Clo.
23			40	44	33	29·90	30·00		12	11	N	N	Clo.	Fine	
24	☽		37	35	28	29·56	29·63		9	10	WNW	N	Fine	Clo.	Fine
25			34	38	34	29·80	29·82		10	11	N	NW	Fine		
26			34	38	35	29·60	29·45		9	11	NW	NW	Fine	Clo.	Rain
27			41	44	49	29·43	29·43		12	13	SSW	SSE	Clo.		Rain
28			49	51	34	29·35	29·35		13	14	SSE	E	Rain		
Mar.															
1			34	38	38	29·28	29·34		14	13	E	NE	Rai.& Snow	Rain	
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3	○	,11	39	40	39	29·63	29·83		11	11	E	E	Clo.		
4		,08	41	44	38	29·91	29·96		11	12	NE	ENE	Fine	Clo.	Rain
5		,02	40	44	40	30·01	29·96		13	12	NE	NNE	Clo.		Rain
6			42	45	38	29·92	30·02		13	12	ENE	ENE	Rain	Fine	
7			40	44	39	30·09	30·13		11	12	NE	NE	Clo.		Rain
8			10	42	38	30·08	30·01		13	13	NE	NE	Clo.		
9			10	43	39	30·07	30 13		12	10	S	SW	Clo.		Fine
10			43	45	40	30·11	30·05		13	12	NW	N	Clo.		Fine
11	○		45	50	41	30·07	30·11		13	13	NW	NW	Fine		
12			47	51	42	30·17	30·24		12	13	NW	NW	Fine		
13			47	50	40	30·30	30·31		13	11	NW	NE	Clo.		
14			44	48	38	30·29	30·24		12	13	NW	SSE	Fine		
15			43	50	43	30·16	30·10		13	13	SE	SE	Fine		Rain
16			48	52	44	30·07	30·03		12	11	SE	NW	Fine		
17			47	53	37	30·11	30·21		9	7	NE	NNE	Fine		Clo.
18		,02	41	47	41	30·24	30·04		6	8	NW	W va.	Fine		
19	○	,08	45	49	41	29·61	29·39		12	13	SW	NW	Rain	Fine	Rain

The quantity of rain fallen in the month of February, is 1 inch and 52-100.ths.