

John Crawford, M.D.



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FOR THE YEAR 1787.



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LONDON MEDICAL JOURNAL,

FOR THE YEAR 1787,

PART THE FIRST.

I. Farther Observations and Fasts relative to the Prastice of Inoculation of the Small Pox. Communicated in a Letter to Dr. Simmons, F.R.S. by Mr. John Covey, Apothecary at Basing-stoke, in Hampshire.

To Dr. SIMMONS.

SIR,

If you think the following observations merit a place in the Medical Journal, you will oblige me by inserting them, in addition to those some time since sent *by,

SIR,
Your most obedient servant,
John Covey.

Basingstoke, Nov. 27th, 1786.

* Vol. VII. page 180.

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CRUDE

CRUDE matter, taken from the inoculated part in its early stage, although it may generally prove efficacious, and is strongly recommended by several respectable writers, is not always to be depended upon.

Mr. Mudge fays, "This mode of proceed-"ing, he has great reason to believe, is a very " uncertain method of infecting the patient. " Poisoning the skin or part itself to which " the virus is applied, locally, and infecting " the conflitution generally, are two diffinct confiderations. The fimple inflammation of " the puncture, and the subsequent pustular " appearance, being no proofs that the poison " has reached the constitution. That Messes. Langworthy and Arfcott, furgeons, inocu-⁶⁶ lated thirty patients with matter taken in its " crude state from the arm of a young woman, ef five days after she herself had been inocu-" lated; that although the infection took place on their arms, producing a large prominent " pustule, with matter in it, yet not one of "them had the finall pox in confequence of " it "." And Baron Dimfdale, on this fact, observes, "that the failure most probably arose

^{*} Mudge, on Inoculation, from page 17 to page 23.

[&]quot; from

from want of confidering accurately, whether fuch inflammation and fore were truly of a variolous nature, which, in the present " instance, he thought was not the case; and "that the thirty persons were inoculated from

" a discharge not impregnated with the vario-" lous poison "."

I was myself some time past informed of a family that were inoculated at a house set apart for this purpose, who, after a slight degree of illness, and a few eruptions of short-duration, were fent home in thirteen or fourteen days. as having paffed in that expeditious manner through the real fmall pox; but the event left no room to doubt of their having been inoculated with matter from a spurious pox, they all being taken ill foon after their return, and having the true disease in the natural way.

On the 20th of last month I inoculated nine persons with fresh crude matter, taken on a thread from the arm of a young man, on the tenth day from his inoculation, and before he had any eruption. The arms of two of these began to inflame, and the small pox appeared at the usual periods. The incisions on the

[&]quot; Dimsdale's Tracts on Inoculation, page 186.

other feven began to inflame the day after they were made; on the fourth, the inflammation was fo greatly increased, and most of them discharged fo confiderably, as to have afforded matter fufficient to have inoculated fifty perfons; on the fifth and fixth, the greater part of them were covered with large prominent scabs, the inflammation being much abated; on the eighth, many of the scabs were rubbed off, and the inflammation was fo far gone, as to make it doubtful whether the matter had taken a proper effect or not; on the ninth, two of them began complaining, as did three of the others the three following days, the incisions being again fomewhat inflamed, with a flight degree of pain in the axilla. On the other two of these seven, the scabs being gone, and no sign of inflammation remaining, I inoculated them again, on the tenth day from the first inoculation, with concocted matter; these incisions began to inflame the third day thereafter, and gradually increased till the fifth; the patients then fickened, and the eruption appeared on the feventh. They all had the diftemper in the mildest manner.

Notwithstanding these facts speak greatly in favour of concocted matter; yet I would by

ho means be understood as affirming, or event believing, that the same effects will always follow the use of crude matter; most certain, however, it is, the progress was in these instances very irregular: possibly, the early and great discharge from the incisions might be the cause that several of these patients sickened so much later than usual, and that in two of them the variolous insection appeared to be entirely carried off.

Neither is the thin watery ichor, contained in the large vesications which sometimes appear in the small pox, proper for the purpose of inoculation; of this I have known some instances, at one time on three patients, at another time on four; the same being introduced each time in its sluid state by puncture, and yet failing in its effect.

Matter taken on a thread from the fairest pustules, a day or two before they begin to turn off, carefully dried and kept from the damp air, answers every intention of the inoculator, when placed in a slight incision, and retained therein for a short time by a roller without plaster; with these additional advantages, that no mistake can easily be made in the distemper by the operator; the patient may

rest satisfied, that he is secure from future infection, and at the same time such accidents as are related by Mesfrs. Frewen, Mudge, and Quier, will be avoided.

Mr. Frewen fays, that "Mr. Dutton, fur-" geon, informed him, that he unwarily gave " a woman the finall pox by bleeding her with 46 a lancet, which he had used nine days before in opening fome puffules, in order to take " matter for inoculation "."

Mr. Mudge gives a fimilar instance ::

And Mr. Quier fays, "he can by no means " recommend the use of a lancet with matter "dried on it; the wounds with which the es fame are made most commonly inflaming as much the day after they are made, as they usually do the fifth day, when fresh sluid matter is used; that about the third day this inflammation begins to subside, and then ee gradually inflames again, provided the in-" fection succeeds; that by suffering the mat-" ter to dry on the lancet, it will be fo blunted, as to require more force to be used in making the incision; the consequence of which

Frewen's Practice and Theory of Inoculation, page 25.

⁺ Mudge, on Inoculation, page 13.

" will be, a speedy inflammation and digestion of the wound, and by the discharge the variolous infection will sometimes be carried off:" and of this he gives two inflances."

And, indeed, when any confiderable numbers are to be inoculated, and there is no variolous patient near, the use of dried thread will, I think, be far preferable to the mode of infecting a number of lancets sufficient for the purpose, or drying matter, and then moistening it with the steam of hot water, or diluting it with a small proportion of the same.

Dr. Schultz, who for a confiderable time attended the hospital for inoculation in London, says, "The thread wherewith the operation of inoculation is performed, is to be prepared in the following manner: the tops of a few mature pusules are opened with a lancet on the arms or legs, and a cotton thread of the necessary length is moistened with the purule lent matter. This thread is then gently dried by the fire, and afterwards laid up in a wooden box. Some make use of a close

^{*} Essays and Letters on the Small Pox, Inoculation, &c. page 72.

VOL. VIII. PART I, B "ffop-

"flopped glafs; but that is not fo eligible,
for Mr. Wall, furgeon to the Small Pox
and Christ hospitals, once perceived a pu
trid smell out of the glass, perhaps, because
the thread had not been sufficiently dried."
And that Dr. Fothergill told him "of such
another instance; and observed, that if the
thread is not dried, the matter is much more
fubject to putrefaction *."

Dr. Wall fays, "that where the thread is to be kept long before it is used, it may be best to dry it a little before it is secured in the phial from the external air, as by this means any putrefactive fermentation in the pus may be prevented. He had been told, that animalcula had been observed in the thread, when put in wet, and kept a considerable time †."

I have myself formerly seen some instances, where cotton, imbued with variolous matter, and put wet into a glass closely stopped, has soon grown putrid and mouldy.

I acknowledge, I could never discover any advantages attending punctures, and the use of

^{*} Schultz, on Inoculation, page 47.

⁺ Andrew, on Inoculation, page 52.

fluid matter, superior to those attending slightincisions, and the same matter dried, provided it had not been long taken before it was used; in this latter ease, the effects are said to be, and, I believe, are, slower; and it has been apprehended, the distemper has sometimes proved less savourable.

Dr. Monro fays, "Five persons were inoculated with long-kept matter; on the sourteenth day thereafter, one of these severed,
and in two or three days more the small pox
appeared. This patient recovered. Three
others severed six weeks after the inoculation; one of these recovered, the others
died. The sisth had no small pox at all*."

Although, as before observed, I have myself never had occasion to make use of any variolous matter that had been taken more than fix weeks, having ever made choice of it as fresh as possible, yet I am in no doubt of its keeping a much longer time: but how long, is a circumstance, I believe, not hitherto determined, and whilst fresh matter is to be procured, is an inquiry savouring more of curiosity than utility; possibly, so long as the thread

^{*} Monro, on Inoculation in Scotland, page 36.

retains its springiness, it will prove efficacious.

Dr. Kirkpatrick relates a case where some was used, feemingly with success, which had been taken almost fix years: but when it is confidered, that the thread was here applied in the manner of a feton, and moved about each day; that the patient fickened the fixth; that the eruption appeared the eighth; and that the natural difease had been in the same house a short time previous to the use of it; there is certainly much reason to doubt whether the fmall pox was received from the operation or not; and that the Doctor himself had his scruples, I think, appears probable from his own relation of the case: most certain it is, little, if any thing, could be learnt from the appearance of the punctured part *.

In addition to what was faid in my last, relating to the inoculated small pox anticipating the natural infection, I have farther to observe, that, for many years past, on finding one in a family ill with the said disorder, and where the eruption has not been out more than three,

^{*} Kirkpatrick's Analysis of Inoculation. Second edition. Page 212.

four, five, or fix days, I have advised those in the same family who had not already had it, to be immediately inoculated, and I have very rarely met with an instance of its having deceived my expectations.

As a strong confirmation that the inoculated small pox does supersede the natural infection, I shall relate the following recent fact.

On the 4th of August last, I admitted Elizabeth Head into my inoculating house, she having a full crop of the coherent small pox, which began coming out upon her the 1st, in the forenoon; she had with her a child about four months old, which had been constantly suckled by her from the time she was first taken ill, and continued so to be during the whole of her illness. I inoculated this child with matter taken from its mother soon after their admission into my house; the punctured part instanted properly; on the 11th, the child was fretful and severish, and on the 14th, a very favourable eruption appeared, and the child was from this period free from complaint.

Sir George Baker gives two fimilar inftances, the one from his own knowledge, the other from the relation of Dr. Watson, of sucking children inoculated with success the fourth or

fifth

fifth day after the fmall pox had appeared on their mothers*.

These are convincing proofs, how little foundation there is for the dread of accumulating infection, either by this or any other means, so much attended to by many practitioners.

I apprehend that a rigid preparation, together with repeated mercurial medicines, expofure to the cold air, &c. has proved injurious to many tender conflitutions.

Sir George Baker fays, "that a general pre"parative method, although it has been at"tended with more fuccess than could reasonably have been expected, has not always
been practised with impunity; that persons

of tender habits have suffered greatly from

the repeated use of strong purgatives, added

to a severe course of abstinence; and that in

a few instances of children, convulsions, and

even death itself, have been the consequence

of this treatment: such, indeed, are the es
fects likely to be produced in this practice,

whenever the disease is prescribed to, and

not the patient." He observes farther, that

^{*} Baker, on Inoculation. Medical Transactions. Vol. II. Page 310.

[&]quot; various

various are the ill effects which have been produced by the indiferete use of purgatives, given with a view to suppress and repel the eruption. The most common, as well as the most fatal, is a consumption of the lungs. The late Dr. Blanshard informed him, that out of ninety persons who had been inoculated in one village, ten died consumptive, soon after their recovery from the small pox; three only of which number had shewn any disposition to diseased lungs before their inoculation; that all these people had taken strong purgative medicines through every stage of the disease."

Dr. Glass says, "that an imperfect crisis will account for the languishing and consumptive cases, which too often, if common report fays true, follow the present very cooling process. All the evils, however, produced by the modern method, seem to be owing to the empirical practice of carrying it to the fame length in all cases, and in most cases to a much greater length than is necessary or proper †."

And

^{*} Baker, on Inoculation. Med. Trans. Vol. II. page 301.
† Glass's Second Letter to Dr. Baker, on Inoculation,
page 47.

And Dr. Makittrick Adair has given feveral cases of the fatal effects attending the repellent plan, which he fays, "ought to be, in general, "more moderately used, and in some cases to-tally deserted*."

Upon the whole, I am in some doubt whether it is not equally as safe to sollow the advice of Dr. Gatti +, and inoculate without any preparation at all, except in some particular habits, which may evidently require it.

Dr. Fraser, of Antigua, says, "It is, indeed, difficult to conceive what preparation
can be preferable to sound health, or what
can prove a more proper nidus for the reception of the variolous matter, than a body
whose juices are mild and balsamic, without
acrimony of any kind, and such as circulate
freely, without exceeding in proportion to
the vessels which contain them. It follows
from this, that these previous courses ought
to vary in different subjects; and that it is

if little less than empiricism to prescribe with-

^{*} Adair, on the ill Effects of the repellent plan. Medical Commentaries. Vol. VIII. page 2111.

[†] Gatti's Observations on Inoculation. Translated by Maty.

" out distinction, what is only adapted to a particular case *."

Since my last, I have observed two cases similar to those related by Dr. Monro, where the incifions made on the arms of two children out of three shewed no figns of inflammation, and yet they both sickened on the eighth day from the inoculation, the fmall pox foon appearing on them of a bad fort, and they both died: but as the other child's arm inflamed, and discharged matter in eight days, and then healed, and she did not ficken till the twenty-fourth or twentyfifth day after being inoculated, it is reasonable to suppose the matter made use of had lost its efficacy, and that they all took the infection in the natural way; the fmall pox of a bad kind raging in the fame place, twelve other children dying of it within the fame week, and in the fame street ...

I have likewise, since that time, on looking over Mr. Quier's account of inoculation at Jamaica, observed, that matter taken on the eighth day from the incision made upon a

^{*} Letters and Essays on the Small Pox, Inoculation, &c. Page 108.

[†] Monro, on Inoculation in Scotland. Page 36.

Vol. VIII. PART I. C negro

negro woman who had already had the difease, communicated the true small pox to three negro boys, into whose arms the same was infused. From whence he concludes, that the variolous ferment, being introduced by an incision into the skin of a person who has already had the small pox, and consequently is no longer capable of being insected with that disorder, may raise a local inflammation, and affimilate the juices contained in the part into its own nature, so as to enable the pus formed of them, when insufed into another body which has never undergone the small pox, to excite in it that specific disease.

And Dr. Rush, of Philadelphia, says, that Dr. Way, of Wilmington, in Newcastle county, informed him, that he made a puncture in his own arm with a lancet dipped in variolous matter; that notwithstanding he had already had the small pox, the spot where the puncture was made inslamed, and in the usual number of days was silled with matter; that he inoculated a patient with some of this mat-

; ter;

^{*} Letters and Effays on the Small Pox, Inoculation, &c. page 100.

ter; that the patient took the infection in the usual time, and had the small pox in consequence thereof *.

These facts are strong evidences in favour of the observations on the same subject by Mr. Dawson †; but whether the application of such matter will be constantly, or even generally, attended with the same effect, suture experience must determine.

A case having lately fallen under my care, which appeared to me to be a convincing proof of the superior esseator of bark and acids in that most dreadful illness, the bloody small pox, which, as Sydenham observes, "Pestem ipsam pernicie æquabat;" and is almost constantly "Mortis prænunciæ."—I beg leave to relate it.

Master Carver, aged twelve years, naturally of a weak and tender habit of body, was removed in the morning of the 28th of July last, from a neighbouring boarding school, to my inoculating house. He had been taken ill the 23d; the next day he had complained of violent pain in his head and back, and was at times delirious:

^{*} Medical Observations and Inquiries, Vol. V. page 40.

⁺ See Vol. VII. page 66.

these complaints rather increased the 25th, and on the evening of the 26th were attended with fome eruptions, which were discovered to be the small pox in the night of the 27th. I first faw him foon after his arrival at my house: his face and hands were covered with the confluent kind; his body and other parts were likewife much loaded, running together in clusters in many places: there were a confiderable number of black spots on his body, hips, and thighs, but more especially in the middle of these clusters. He had an extremely quick pulse, a hot and dry skin, a parched tongue; complained of pain in his head, back, loins, and stomach; breathed with some degree of difficulty, and was fomewhat delirious. He had just made nearly a pint of urine, greatly loaded with blood. As I was informed he had had no flool for the two or three preceding days, I gave him an opening medicine, which, in the course of the day, produced two motions, likewife much loaded with blood, and in the ensuing night one other, more considerable in quantity, and more deeply coloured with the same; I likewise gave him every three or four hours, a draught, ex decoct. cortic. Peruvian rub. fort. ziss. tinct. ejusd sp. ziss. c. spir.

spir. vitrioli ten. gut. xx., and diluted with aq. hordeat. c. gum arabici, in each draught of which ten drops of the same spirit were infused. The morning of the 29th I found him cooler and more composed, the oppression on his breath gone, and the delirium having left him foon after the last stool; he persevered in the use of the draughts, drops, &c, the whole of this day, throughout which his water was nevertheless as bad as it was the preceding day. On the 30th he had another stool, less loaded with blood, but his urine was the fame; the medicines, &c. were repeated. The 31st he had another motion, free from blood, and the water was less tinged with it. On the 1st of August he appeared much better, his urine was of a natural colour, and the feverish heat gone; but he was greatly reduced: the drops were now omitted, and the draughts, made more cordial, were repeated; proper nourishment being strictly attended to. In this state he continued until the 5th, when, nature being nearly exhausted, he grew insensible at times, and departed in the ensuing night.

Now, although this case ended fatally, yet I think the good effects of the medicines were very conspicuous; for notwithstanding both his

urine

urine and stools contained so large a proportion of blood, as in part to coagulate when cold, yet a stop was put to this most alarming symptom; and notwithstanding his great weakness, the pustules (on his face more particularly) advanced much better than could have been expected; the black spots being likewise almost gone, and I entertained some hopes of his recovery till the morning preceding his dissolution. As no attention had been paid to the colour of his water, it is uncertain whether he had voided any blood with it before his removal or not.

I have very frequently experienced the good effects of the bark in almost every kind of bad small pox, often beginning the use of it soon after the cruption, and persevering with it throughout the illness, not neglecting, however, to add to it such other medicines as from time to time seemed necessary; but during, as well as previous to, the exhibition of this medicine, (when given in substance more particularly) a strict attention is to be paid to the state of the bowels, as costiveness, which frequently attends the use of it, will, in great measure, destroy its good effects.

Much

Much pains have been taken by Dr. Hay-garth* to fet in a true point of view feveral particulars relating to infection. As the two following cases are on the same subject, I beg leave to subjoin them:

Two brothers had the finall pox in the worst degree; under the fame roof lived a man, his wife, his mother, and four children. time after the death of one of the young men, and the recovery of the other, the old woman was taken ill with the usual symptoms preceding the fame distemper; the family being poor, no medical affiftance was called in, and the neighbours being fearful of the small pox, refrained from visiting them. On the fifth day of her illness the fick person died, and it was with fome difficulty two women were procured to lay out the body. No eruptions were vifible on it, excepting a number of fmall purple fpots. About fourteen days thereafter the whole of this family, the two women who had affifted, the fon of one of them, and a girl who had wantonly attended at the grave, were taken ill, and all had the fmall pox. The boy

^{*} Haygurth's Inquiry how to prevent the Small Pox, page 48.

most probably took the infection from his mother on her return home, the girl from the dead body at the grave, they living at a considerable distance from the infected house, and not having been near it.

The two women who attended Master Carver, (whose case is just related) prior to his removal from school, were taken with the small pox in the course of a fortnight, notwithstanding he was removed within forty hours after the first appearance of the eruption, and both died of it.

Although these facts militate against Dr. Heberden's observation*, yet I have experienced a great number of cases in confirmation of the truth of his remark. As there must, therefore, ever be so great uncertainty whether the infection is received or not, the propriety of an immediate inoculation, under such circumstances, is evident, as the most probable means of avoiding the ill consequences that may, and frequently do, follow.

^{*} Haygarth's Inquiry how to prevent the Small Pox, page 51, and London Medical Journal, Vol. VI. page 209.

II. Some Observations on the Connexion of the new and full Moon with the Invasion and Relapse of Fevers. By Robert Jackson, M. D. Physician at Stockton, in the County of Durham. Communicated in a Letter to Sir Joseph Banks, Bart. P. R. S., and by him to Dr. Simmons.

To Sir Joseph Banks, Bart. P. R. S.

SIR,

HERE is a subject which at present seems, in some degree, to engage the attention of the Public - I mean the influence, or, to speak more circumspectly, the connexion of the new and full moon with the invafion and relapse of fevers. It is now about a dozen years fince I made fome observations on this matter in the West Indies, and probably I should have made them known to the world before now, had I been able to have carried them on in the extensive manner I originally intended; but the necessity of attending to some concerns of life has obliged me to leave the defign, if not totally, in a great measure unfinished. In the West Indies, indeed, in the island of Jamaica, I think I may fay my observations were made with care. The fame care was con-

Vol. VIII. PART I. D tinued

tinued in the fouthern provinces of America; but my papers, with the original remarks, having been loft in one of our unfortunate rencounters with the enemy, I can only charge my memory at this diffance of time with what was the general refult of them. In France, Germany, and Italy, I had made a few curfory remarks; not numerous, or pointed enough, however, to be depended on. In England I can fay nothing, my opportunities of observing here having hitherto been very confined.

Within these two years the world has been favoured with a treatife on this subject by Dr. Balfour, a gentleman who has refided and practised several years in India: but his account differing materially from what was observed by me in the West Indies and in America, I take the liberty, Sir, of prefenting to you the refult of my inquiries on this subject, without any other apology than what the importance of the fubject carries along with it. It is a fubject which I am perfuaded will be curious to you as a philosopher; and the knowledge of it may be of use to the physician. This, then, being the case, I shall beg leave to mention to you in a few words, and a very few words will fuffice,

fuffice, how the idea arose, and the manner in which it was prosecuted.

I went out to the West Indies in the beginning of the year 1774. I was apprized of what Dr. Lind had mentioned, as an effect of the new and full moon, and of eclipses, on the relapse of fevers in India, and might be supposed not unprepared to expect something of a fimilar kind in Jamaica. Accordingly, before the end of the year, I had reason to believe it was a thing even in that country not without foundation. In the course of the year following I went farther - I observed that frequently three or four of a company of foldiers, who were quartered at the place where I refided, and of whom I had the care, fell ill on the same day; and that this did not happen, perhaps, above once in a fortnight. thing feemed curious; and as it happened repeatedly at the time the moon was near full, a hint was fuggefted, that not only the relapfe, but that the first attack of fever was probably connected with the changes of that planet. To ascertain the truth of it, however, in the beginning of the year 1776 I provided myself with an almanack, and on the blank leaves of it marked the precise date of attack of such

D 2

fevers

fevers as came under my care. At the end of the year, of thirty cases of proper remitting fever, I found that twenty-eight had happened on one or other of the feven days preceding a new or full moon. The year following, of twenty-eight, there were only twenty-two: it was remarked, however, that of those fix which happened in the period which follows new and full moon, three had happened on the day of the new moon, and only a few hours after the change had taken place. Besides those cases of proper sever, I had taken notice of a number of day fevers and flight feverish disorders, the attack of which feemed likewise to have been influenced by the fame cause, though in a smaller degree.

This precifely is the case as it stood in the almanacks, accompanied, however, with a few remarks and explanations; the principal of which are the following:— That though the seven days preceding new and full moon, or the second and last quarters, are what might be reckoned the sickly period, yet it was in the four days immediately preceding that the attack of severs was chiefly remarkable; that the invasion of severs was always nearer new or full moon in the dry and healthy season, than

in the rainy months, when diseases were common, particularly when they were epidemic; that this was likewise more observable in the mild, remitting severs, than in those of a violent and malignant kind; and in the soldiers of the garrison, who were exposed to sew occasions of disease, than in the inhabitants of the town and country, whose various employments subjected them oftener to satigues, or carried them oftener to unhealthy situations.

The above observations, which were made at Savannah la Mar, in Jamaica, feeming to carry with them a very decided proof of the influence, or connexion of the moon with the invafion and relapse of fevers, I thought it might be of consequence to prosecute the idea in the different countries I might happen to vifit. In the year 1778, I joined the army in America. and went to ferve in a regiment that was quartered on York island. In the months of June and July, the regiment being encamped in a dry and healthy fituation, fevers were rare: and fuch as happened, were in the period approaching to a new or full moon. In August, it was removed to Kingsbridge, and encamped in the neighbourhood of some low and marshy ground, where it continued the whole of the autumn autumn. An intermitting fever foon began to appear, and foon became highly epidemic: its time of invafion, with respect to the moon, was greatly more irregular than it had been in the former months; at the end of the year, however, of one hundred cases, about eighty were found to be in the period above mentioned. What feemed remarkable, relapfes were rather in a smaller proportion. In the years 1779, 1780, and 1781, the regiment ferved in the fouthern provinces, and may be faid, indeed, to have been almost constantly in the field: it was often encamped in unhealthy fituations, and often had the intermitting fever epidemic in a high degree. When that was the case, as was observed before, the irregularity of invafion was greater; yet even then, the approach to new and full moon feldom failed to double the number of the fick : but my memorandums having been lost, I cannot exactly afcertain the proportion in the three last campaigns.

Having related the above observations, which I flatter inyself were made in a manner little liable to deception, and in the noting of which I was not consciously biassed by theory, it may not be amiss to take a view of the account given by Dr. Balfour. The three days immediately

preceding, and the three days immediately following, new and full moon, are what are mentioned by him, as the period remarkable for the invasion and relapse of fevers: but it is pity, he does not tell us on what facts he founded this opinion. If it is drawn from a loofe, from a gross estimate of what he thought he saw, it cannot be depended on. Unless a man is circumstantial in his facts, and very circumstanstantial too, a preconceived opinion leads him aftray; for it is feldom, very feldom, that theory does not run before observation. What he obferves, indeed, it must be allowed, is more agreeable to what we suppose to be the effect of the moon on the tides: but the case here seems widely different; and, probably, were we to reason on a subject that ought not, indeed, to be made the fubject of reasoning, we might find fome explanation of it. It being agreed on both fides, that the new and full moon are to be confidered as a powerful exciting cause of fever, it is more reasonable to suppose, that that cause will produce its effect while it is acquiring vigour, rather than while it is losing it; that is, in the days that precede the new and full moon than in those that follow: but this is only a supposition of what may be the cause; the

the fact is certain, as far as a fact in physic can well be. And were any more proofs wanted, to the above we might add the different periods at which fevers have a tendency to relapfe. In the West Indies, and in America, particularly in the West Indies, where the crisis for the most part was the work of nature, fevers, when they did return, almost always returned on a feventh, a fourteenth, a twenty-first, or a twenty-eighth day from the termination of the fever; more of them, indeed, on the fourteenth than on all the others put together. This obfervation was not unknown to many practitioners in Jamaica; it was common with them to fay, when a person had had a bad fever, that he would either have a return of it in a fortnight, or fome other difease; and the prediction in the courfe of three or four years was feen feldom to fail.

The above facts having put it beyond a doubt, that the new and full moon, or the approach to new and full moon, is a powerful exciting cause of sever, it would be a matter of much consequence to determine the degree of it in the different parts of the world. Surgeons of regiments, and those who have the care of convents and hospitals, have the best opportu-

nity of coming at the truth. Observations made on the people at large, who live in a thousand different ways, will always be uncertain; and the accounts that physicians receive of diseases that they do not see till a late period, are not at all times to be depended on. The importance of the subject is such, that it well deferves to be inquired into. It particularly concerns the army; and it is no rash asfertion to fay, that a knowledge of this principle, and a knowledge of the proper use of bark, will go farther in preserving the health of an army, an army on fervice, than all the other helps of medicine put together. Of this I had a strong proof during the campaigns of 1780 and 1781, in the corps I had the honour to ferve in.

I am, with great respect,
SIR,
Your most obedient
Humble servant,
ROBERT JACKSON.

Stockton, Dec. 3, 1786. III. Case * of a Woman at the Hague, on whom the Section of the Symphysis of the Ossa Pubis has twice been performed with Success, by Mr. J. C. Damen, Surgeon at the Hague.

RS. Cornelia Stols, the subject of this singular history, was, at the time the first of the two operations was performed, in her four and thirtieth year. She was free from any appearance of rickets, and in every respect well formed, except that her pelvis was thought to be somewhat too narrow. Its smallest diameter, which was from one os ischium to the other, was supposed to be about three inches; and its largest, from the offa pubis to the os facrum, about four.

In two former labours, in both of which she was attended by Mr. Damen, it had been deemed necessary to have recourse to the crotchet. In the second of these deliveries, he had been favoured with the assistance of three experienced practitioners of midwifery at the Hague, all of

^{*} This article is extracted from the accounts of the two operations communicated by Professor Camper to the editors of a periodical Work, printed at Amsterdam, entitled, Algemeens Vaderlandsche Letteroeffeningen, and inserted in their volumes for the years 1784 and 1786.

whom agreed with him in opinion, that the pelvis was too narrow to allow the head of a full grown feetus to pass through it without being leffened. This induced him, when the patient became pregnant a third time, to think of having recourse to the section of the symphysis; and in this idea he was confirmed by Professor Camper, and Dr. Van de Laar, a physician man-midwise of great repute at the Hague, who having severally examined the patient, and found a narrowness at the upper part of the lower pelvis, were of opinion, that the difficulty arising from this circumstance might be obviated by the intended operation.

Mr. Damen was called to the patient on the 20th of October, 1783, about four in the afternoon. She had then strong labour pains; and at eight o'clock the os uteri was fully dilated, and the head of the child felt resting on the brim of the pelvis. The section of the symphysis having been previously determined on, and the consent of the patient and her friends obtained, nothing now seems to have been thought of but to six on a favourable moment for performing it. Mr. Damen had prepared himself for this undertaking by the kind instructions of Prosessor Camper, who, during

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his residence at the Hague, had carefully explained to him on a cadaver all the precautions necessary to be observed in it.

The operation was performed in the prefence of Doctors Janssen, Van de Laar, and Hasselmann, soon after eight in the evening. The patient was placed in a proper situation on a couch, (the rectum and bladder having been previously emptied) and an incision made through the integuments, about the middle of the ossa pubis. The symphysis was easily divided, and the bones immediately separated so much, as to admit the singer of the operator very easily between them.

Mr. Damen was now able to introduce his hand into the uterus, and bringing down the feet of the child, delivered the patient of "a "healthy, strong boy, full grown, and of the 'largest size." The placenta came away without any difficulty. After dressing the wound with dry lint, Mr. Damen applied a steel bandage, invented for these cases by Professor Camper.

^{*} A description of this bandage, by Professor Camper, is inferted in the Nieuwe Vaderlandsche Letteroeffeningen, Vol. V.

The urine came away involuntarily till the twelfth day after the operation, when the patient began to discharge it again naturally. The wound was completely healed on the thirtieth day after the operation.

Professor Camper's bandage was at first thought to be very useful, and perfectly answered the purpose it is intended for in these cases, that of keeping the bones of the pelvis together; but notwithstanding it was lined with smooth leather, and well covered with stannel, the pressure it made on the hips was so great, that on the thirtieth day it was found necessary to lay it aside, and to substitute in its stead a belt, seven inches broad, made of soft Turkey leather, lined with slannel, and provided with three buckles. When the wound was dressed, it was necessary to loosen only the undermost buckle, so that the ossa pubis were kept always close together.

The patient was defired to lay constantly on her back till the 28th of November, when she was allowed to stand upright, and to walk a little for the first time. She continued to avail herself of this permission every day more and more, and was soon able to perform her domestic business as well as ever.

Dr. Fischer, professor of physic and midwifery in the university of Goettingen, who happened to be at the Hague in November 1783, and who visited the patient with Mr. Damen, wrote the following account of her fituation to Professor Camper.

" I have feen to-day (November 28th) Mrs.

sc Stols, and her child, with the utmost satis-

" faction, both of them in good health. The " wound is almost healed, and she can now

66 stand upright, and walk without pain or dif-

66 ficulty, as I have had an opportunity of fee-

" ing, when she made the trial for the first " time."

On the 23d of June of the year following, when Profesfor Camper was at the Hague, the patient was examined by that gentleman, Dr. Van de Laar, and Mr. Damen, and the following affidavit is given as the refult of the examination, viz.

"Inquiry into the consequences of the divi-

66 fion of the fymphyfis pubis, performed on " the 23d of October, 1783, by Mr. Damen,

on the wife of Caspar Stols, of the Hague. " We the underwritten P. Camper, A. Van

" de Laar, and J. C. Damen, do certify, that

se we have examined, this 23d of June, 1784,

at the house of Mr. Damen, the wife of Mr. "Caspar Stols, and have found that the offa pubis are immovably united on the infide of the pel-" vis, leaving a finall elevation all along that union, which is not above the breadth of a " ftraw; and which in women who have never " undergone fuch an operation, is often much " more remarkable: and farther, that on the outfide the connexion is also very evident: but that a little below the middle of the offa ec pubis, there is a place which is painful when touched, and fornewhat foft and eleof vated. Dr. Camper suspects a little matter " at this part, but which, he thinks, will eafily 66 find its way outwardly, as hath already hapof pened. -Mr. Damen thinks the left os pubis " is fomewhat lower than the right: but this " difference has not been observed either by " Dr. Camper or Dr. Van de Laar.

"The urethra feems to be moveable on both fides inwardly, and to be not fo attached to the offa pubis as in other women.

"They find that the patient is fometimes unable to retain her urine when in an erect posture; but that she is always free from this inconvenience when in an horizontal position, and that oftentimes, for several days

" together, no urine is discharged involuntation rily.

"All the other parts appear to be quite natural. She walks very fleadily, and came this evening, with her child on her arm, to

" the house of Mr. Damen.

"Some weeks after the operation, when she was walking and performing her domestic business, a bubonocele, to which she had

" long been subject, made its appearance again,

"but has fince been eafily kept up by a pro"per trus."

" In all other respects she appears to be in perfect health.

(Signed) "Petrus Camper.
"A. Van de Laar.

" J. C. DAMEN."

We come now to the account of the second operation, which was performed on the same patient on the 11th of August, 1785. The division of the symphysis was not so easily performed as before, and was followed by symptoms which threatened the life of the patient, but which Mr. Damen supposed to be independent of the operation.

Mr. Damen was called to her at ten in the morning. The os uteri was then much dilated,

but

but the head of the child was fo high up, that he could not feel it by the touch. The fuccess of the former operation, however, and the opinion he had formed of the impossibility of a child's paffing alive through the pelvis of this patient, feems to have determined him to have immediate recourse again to the section of the fymphysis pubis, without waiting the farther progress of the labour. He was confirmed in this resolution by Doctors Jorissen, Van de Laar, Haffelmann, Kasteele, and Huybert, who affifted him on this occasion; and who, having examined the pelvis, were of opinion, that it was not at all enlarged by the former operation, and that the fection was the only means by which the life of the child could be faved.

In cutting through the fymphysis, Mr. Damen met with greater difficulty than before, the cartilage seeming to be harder; but as soon as the division was completed, the offa pubis separated so much, as to allow two singers to be placed between them.

The child, which proved to be a female, was turned and delivered by the feet, as in the former operation. The circumference of this child's head was found to be fourteen inches. It died five weeks after its birth.

VOL. VIII. PART I.

In the evening, after the operation, the patient was able to discharge her urine voluntarily.

She went on well till the third day, when she was attacked with symptoms of peritoneal inflammation, such as tension and pain of the belly, vomiting, and sever; to which were asterwards added, hiccup, and a suppression of the milk and lochia. These complaints, however, yielded to evacuations, and other suitable remedies, and on the fixth day she began to recover again.

An attempt was made to apply the fame kind of belt, made of foft leather, which had been employed-after the former operation; but the patient refused to let it remain on, so that she was without any bandage. This circumstance, however, did not prevent the reunion of the offa pubis, which was so complete at the end of the third week after the operation, that the patient was able to walk.

In July 1786, she was examined at the Hague by Professor Camper and Dr. Van de Laar, who found the union of the bones perfect. She was able to stand upright, or on either leg, without inconvenience; and had walked

walked from her own house to Mr. Damen's, a distance of about a mile and a half.

On the infide of the fymphysis they felt a hollow part, though very shallow, the cartilage, or callus, not having completely filled up the interval. Externally, no cicatrix was visible; nor was any thing preternatural observed about the urethra.

She had had no incontinence of urine after the fecond operation, and was perfectly free from any fuch complaint at the time this examination took place. She felt no inconvenience in going to ftool; but had a flight prolapfus of the vagina. Her menfes had appeared regularly.

The hernia having been neglected, filled up the pudendum on the right fide, but was eafily reducible.

IV. An Account of the Efficacy of Mercury in the Cure of inflammatory Diseases, and the Pysentery. Communicated in a Letter to Dr. Simmons, F.R.S. by James Lind, M.D. F.R.S. Physician at Windsor, and Fellow of the Royal College of Physicians of Edinburgh.

T is now pretty well known, that mercury is univerfally used, in the East Indies, as a

specific in inflammations of the liver. This practice would to us, perhaps, appear empirical, had not its salutary effects removed every doubt of the propriety of its use: it has also been employed with advantage in this country by some eminent physicians, in the cure of a few other cases of inflammation; and lately, mercury, joined with ipecacoanha, has been administered in India with surprising success in the cure of dysenteries.

From these circumstances I am led to believe, that mercury is possessed of antiphlogistic powers, that deserve the attention of every medical practitioner. I have therefore been induced to collect the following instances of instances of instances with advantage; and I shall at the same time endeavour to point out the cases of instances in which it may be hurtful.

I shall begin with the hepatitis, a disease which occurs so seldom in Europe, that its existence has been doubted by some eminent physicians*, but which is very common in the East Indies.

^{*} Hofman. Opusc. Patholog. Pract. Dec. 2, Differt. viii. Page 484.

[†] It is equally rare in the West Indies as in Europe.

When the disease is original, and not induced by remitting sever, or other disorders, it begins with a tense, heavy, but sometimes pricking pain under the right hypochondrium, with a great increase of pain on pressing the liver upwards, or when the patients lie on their lest side. The eyes are generally tinged with yellow, and the patient has a sharp pain on the top of the right shoulder, which is the pathognomonic symptom of this disease. The pulse is sometimes quick and strong; at other times it differs little from the natural.

As the disease advances, the skin commonly becomes of a dark, sallow colour; the respiration becomes difficult; and the patient is oppressed with sickness, frequently accompanied with vomiting and purging of bile. If the inflammation continues, shiverings and suppuration speedily ensue. When the matter points outwards, and is discharged by incision, the patient frequently recovers; but seldom, when the abscess bursts inwardly; death sollowing either immediately or soon after, the patient becoming tabid, from the purulent matter that is discharged into the abdomen or thorax.

In the East Indies, as foon as they are conyinced that the liver is affected, from its being painful painful when pressed upwards, before the pain on the top of the right shoulder comes on, they take away a little blood, and, confining the patient to a proper antiphlogistic regimen, begin to rub in mercurial ointment on the side affected, and to give repeated doses of calomed internally, losing no time in bringing the mercury to the mouth; for as soon as this is effected, the pain commonly ceases, and by the time the effects of the mercury are over, which generally happens in a fortnight or three weeks, the patient's recovery is complete.

On the fecond or third day of the treatment, they cease to rub in the mercurial ointment on the affected side, but apply a blister on it, and the ointment is then rubbed on the other side.

When the difease has been neglected in the beginning, or the patient has had frequent returns of it, it is not easily conquered, but becomes chronic, and lasts for months, or even years. The liver being now diseased, there is commonly a want of bile, and the patient is extremely costive. Mercury alone is insufficient for the cure; but a change of climate becomes necessary, together with riding on horseback, the use of gentle laxatives, small

doses of rhubarb mixed with fixed alkali, light food, ripe fruits, rennet whey of goat or cow's milk, &c.

Although the universal practice in the East Indies, of curing hepatitis by mercury, fufficiently proves its power of checking inflammation, yet it is at times attended with feveral inconveniencies; fuch as; bringing on a violent mercurial diarrhoa, by the medicine being thrown in hastily, which must always be done, otherwise, in this disease, suppuration would foon come on; and in fome cases the falivation runs fo high as to be truly troublesome. In one instance of chronic hepatitis, I saw a mercurial hæmoptoe brought on by a long use of mercury; and constantly the patients are so much debilitated by taking mercury, that it is a confiderable time before they perfectly recover their former strength in a warm climate.

When the hepatitis has been induced by a remittent fever, or diseases accompanied with putrescency, the use of mercury is always attended with the worst consequences; which seems to show, that its antiphlogistic power must either depend on its inducing the putrid diathesis, or that the atony which mercury brings

brings on, quickly removes the inflammatory spasm. Thus the strength of the strongest man is soon reduced, when he is put under a course of mercury for a trisling venereal chancre, which, were it lest to itself, would not impair his strength in many months: but from which ever of the two causes the antiphlogistic power of mercury may depend, practice shews that it ought never to be used where there is putridity.

Doctor Gilchrift, in the third volume of the Edinburgh physical and literary Essays, gives us several convincing proofs of its utility in this country, in a disorder frequently attended with inflammation, which he terms a thickening of the urinary bladder, a disease which, he says, is sometimes caused by, and frequently is attended with inflammation. In his sirst case, of a woman who had a round tumor, which was felt rising two or three inches above the os pubis internally, after bleeding and laxative somentations, liniments and proper drinks had been used, the mercurial pill was given, by which the illness was presently removed. He

^{*} It is probably from the atony it induces, that mercury has been found fo ferviceable in the tetanus.

observes, this was perhaps no more than a simple inflammation of the bladder*.

In another case which he relates, of a gentleman near fixty, "a small bleeding," he tells us, "shewed the blood a little fizey, and seemed to moderate symptoms; but a second, still smaller, gave neither the same appearance in the blood, nor the same relief, and his pulse slagged. The tumour and instammation were great; there was no room for evacuations, nor was any time to be lost. The only resource left, that could be depended on, was the mercurial pill; by a few doses of which a sensible abatement of pain was procured in ""

Speaking of this method of cure, and use of the mercurial pill, "Many," says he, "would have questioned the propriety of a mercurial remedy; and I should have doubted of it likewise, if experience, in cases of no less delicacy, had not long before convinced me both of its safety and utility. A seless-powerful deobstruent did not appear adequate to produce those great and speedy

^{*} Essays and Observations Physical and Literary, Vol. III. Page 474.

[†] Ibid. page 478.

VOL. VIII. PART I. G effects

" effects which the vehemency of the distem" per required. Besides I made choice of the
" most simple and harmless preparation of
" mercury *."

And in another place \$\dipset\$, speaking of its effects, he observes, that "even before it is selt" in the mouth it may have a considerable effect; but when that happens, a revulsion is plainly made, and resolution is begun; in consequence of which, the inflammation and tenderness of the tumour gradually abate: and he adds \$\dipset\$, that "quicksilver is a powerful antiphlogistic, and removes inflammation without accelerating the motion of the sluids, which it rather diminishes by subduing their inflammatory disposition.

"When there is little or no fever," he adds, "it as powerfully refolves obstruction, without diminishing the impetus of the blood, on a proper degree of which resolution depends."

In feveral cases of inflammation of the bowels which have fallen under my knowledge,

repeated

^{*} Essays and Observations Physical and Literary, Vol. 111. page 493.

⁺ Ibid. page 496.

[†] Ibid. page 498.

repeated doses of calomel, given till the mouth was affected, removed the inflammation after the ordinary methods had proved ineffectual. Crude quickfilver, for the most part, must be injurious, unless we suppose the disorder to proceed from introfusception, which it may remove mechanically; for its effects in common cases, acting as an extraneous, ponderous body, must always be hurtful, unless some of it, being divided by oily or mucilaginous matters in the stomach or intestines, and thus entering the fystem as a mercurial medicine, were to remove the inflammatory spalm; but this it never will effect with the fame certainty or fafety as a small quantity of quickfilver made active by being divided with the bland mucilage of gum arabic: therefore the practice of giving crude quickfilver is now, properly, almost laid aside.

To give mercury in pleurify or peripneumony, is a practice that the most daring empiric in this country would ftagger at; but there are many instances of its being used with advantage in those complaints in an hospital at Naples.

In feveral instances of inflammation of the eyes, where no venereal taint could be appre-G 2

hended.

hended, I have found calomel, given over night before a cooling purge was administered, carry off the inflammation, when the purge without it was never attended with any good effect; and, in fact, mercury is fet down as a remedy for ophthalmia in the Edinburgh Pharmacopœia Pauperum.

The use of mercury, in curing inflammations attending ulcers on the legs from broken fhins, is known to most furgeons, and therefore it needs not now be taken notice of; as is its power of removing every inflammation arifing from a venereal cause.

Pimples, when attended with any degree of inflammation, are fooner cured by rubbing a little mercurial ointment on them than by any other application I am acquainted with.

Dr. Clark, in his excellent book, entitled, Observations on the Discases in long Voyages to hot Countries, and particularly on those which prevail in the East Indies, gives an account of mercury's never failing to cure expéditiously fixed pains in chronic rheumatism, when it has been confined to some particular part of the body, as the shoulders, the joints of the knees, and the arm, after it has refisted every usual remedy; a practice which he learned

from Dr. Silvester. At first, the great success that attended this practice induced him to believe the complaint was joined with venereal pains; but he afterwards found it equally essections in other cases, where there was no reason to suspect any venereal taint.

One of the most useful purposes for which mercury has been given is, that of curing dyfenteries—a practice which has been lately followed with the greatest success on the Coromandel coast. It was first made known to the different surgeons in the Carnatic by a letter sent to each of them from the late Mr. Paisly, first surgeon of the Presidency of Madras.

Their method is as follows:—As foon as the patient begins to complain of fymptoms of dyfentery, they give him repeatedly small doses of emetic tartar till it operates upwards and downwards, and thoroughly clears the stomach and bowels; after which they begin to give mercury combined with ipecacuanha in the following form:

R. Argent. viv. əj.

Pulv. gum arabic əj.

Aq. puræ q. f.

Tere in mortar. marmor. ad perfect.

extinct. globulorum, et adde

Pulv.

Pulv. rad. ipecacuan. 3j.

Fiat massa dividenda in pilulas clx., quarum capiat unam, tertia vel quarta quaque hora.

This medicine they use till the urine, which in the beginning is high coloured, becomes pale, which they look upon as a sign of the disease being subdued; after which a few opiates and some small doses of rhubarb, mixed with absorbent powders, generally complete the cure.

During the course of the disease, they do not neglect to administer emollient and starch elysters; and on the Malabar coast, where they had not yet * got into the practice of using mercury in the cure of dysenteries, if the patient had much griping, they put a blister upon the belly, which, they were of opinion, likewise prevents inflammation and mortification, the symptoms most to be apprehended in this disorder.

It is probably from mercury preventing inflammation, and confequently mortification, that the above practice is fuccessful. Mr. Wilson, an ingenious surgeon in the service of the Hon. East-India Company, told me, when at Pondicherry, that he had feldom lost above two men in a year by dysenteries in the battalion of seapoys to which he was surgeon, since he became acquainted with the practice of using mercury in this complaint; whereas before that he frequently lost in the battalion from twenty to thirty men by dysenteries in a sickly scason.

It is to be observed, that the disorders on the Coromandel coast are attended with much less putridity than those of Bengal, and mercury ought therefore to be used with great caution in Bengal, or wherever there are signs of putrefaction. From this circumstance it is that we may expect the greatest advantage from mercury in the cure of dysenteries in Europe, where the inflammatory diathesis is most prevalent. Indeed the practice is not altogether new to us; for the use of calomel mixed with rhubarb is strongly recommended by Sir John Pringle in his Observations on the Diseases of the Army, and its utility is fully confirmed by the practice of many who have used it.

Wherever I have administered mercury in the cure of inflammations, I have always used the two following preparations of it as the least stimulating, viz. for external use, mercurial ointment.

ointment, made with hog's lard alone, or with the addition of a little bee's wax to the lard first employed in killing the quicksilver, when in a hot climate, where the lard, from being too sluid, has not tenacity enough to divide the quicksilver; and, for internal purposes, I have always divided it with mucilage of gum arabic, which is an efficacious as well as easy manner of preparing mercury.

In the cure of inflammatory diforders by means of mercury, we ought carefully to guard against inducing any great degree of salivation, by which many dreadful symptoms are brought on; and as the subject is new in this part of the world, practitioners ought to be circumspect and cautious in the administration of it; by which means, I hope, fair and candid experiments, not prejudice, will determine whether the practice is useful or injurious.

Windfor, January 3, 1787. V. Experiments and Observations on the external Use of Emetic Tartar. Communicated in a Letter to Dr. Simmons, F. R. S. by Mr. William Blizard, F. A. S., and Surgeon to the London Hospital.

EFLECTIONS on the effects produced by the internal use of emetic tartar, induced me to try its power on the living fibres externally. The observations I have as yet made are few; but they may probably lead others to inquiries of greater importance.

Lint, moistened with a faturated solution of emetic tartar, was applied to the surfaces of many ulcers in the London Hospital. The general effects were as follow, viz.

1st, It immediately occasioned a great degree of pain.

2dly, A florid appearance fucceeded a foul afpect.

3dly, It constantly reduced the granulations in such a manner as generally, after the first or second application, to occasion a cavity in the ulcer. This effect seemed as if produced by an extraordinary action of the absorbent vessels, and not by the destruction of the living solids; for there appeared not the least sign of Vol. VIII. Part I. He a dead

a dead furface, flough, or eschar; on the contrary, the sace of every fore had constantly a red and healthy appearance, although continually wearing away.

An high fungus, from an ulcer having irregular, livid, hard edges, was removed by this application. Preffure, powder of favin, lunar caustic, and lapis infernalis, had been previously employed without success.

This folution has been effectual in cases of verrucæ from fiphilis.

It has been employed fuecessfully in two inflances of tinea capitis.

I have also applied emetic tartar in an undiffolved state. In this form it produced excruciating pain, and a truly caustical effect.

In confideration of emetic tartar being a combination of tartarous acid and the earth of antimony, a faturated folution of cream of tartar was applied to feveral fores; but it occafioned neither pain nor any degree of caustical effect.

The folvent power of water to emetic tartar is nearly in the proportion of one ounce to ten grains.

Do not these facts afford encouragement to make experiments with other combinations of antimony,

antimony, and even with all the metallie falts, in many topical complaints?

I have not yet directed my attention to the effects of the folution, externally applied, on the general vascular system: but if it be susceptible of absorption, its external application may probably prove often useful in cases for which it is now internally administered. If it be not admissible into the blood from external application, it may then be tried with greater freedom in baths, &c., in various cutaneous and topical complaints.

The fact most worthy of regard, and which the recited experiments seem to establish, is, that emetic tartar, in solution, has the power of occasioning the removal of, and, per se, of destroying, living, organised substance.

The effects of emetic tartar on the living folids may possibly suggest experiments towards ascertaining the means of actuating the absorbent system of vessels.

These effects, and some remarks, lately read before the Royal Society, on the different effects of fossil and vegetable alkalies on muscular sibres, manifestly prove that there are modifications and degrees of power of stimulants, in relation to the various component parts of

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the animal machine, not to be learnt but by experiments on the living body.

Lime Street, January 6th, 1787.

VI. Case in which the Substance of the Uterus was in a great Measure destroyed during Pregnancy; with an Account of the Appearances on Dissection. Communicated in a Letter to Dr. Simmons by William Blackburne, M. D., Member of the Royal College of Physicians, London.

A BOUT the beginning of April, 1784, I was defired to vifit a poor woman who fuffered under the following fymptoms: — She complained of violent pain in the abdomen, back, and thighs; of conftant thirst, shiverings, followed by heat and profuse sweats; her nights were restless, her breathing difficult; and she was also affected with dysuria and costiveness. Her pulse was hard and quick; she had no appetite; and presented the most horrid spectacle of emaciation I ever beheld. A hard unequal tumour occupied the whole abdomen, which, on being gently agitated, produced an evident

evident fluctuation; and there was a constant, fœtid, ichorous discharge from the vagina.

In so hopeless a case palliatives alone were indicated. These were so administered as, in some degree, to alleviate her misery.

In the course of two or three visits I obtained from my unhappy patient the subsequent relation :- According to her reckoning, she had arrived at the eleventh month of her uterogestation, and had happily passed through the regular gradations of pregnancy until the conclusion of the feventh month, when, immediately after raising a pail of water to her head, the was attacked with a most violent pain in the abdomen, which continued for the space of thirty-fix hours, and was at length removed by bleeding at the arm and other antiphlogistic remedies. During several weeks after this accident she felt great pain in the lower part of her belly whenever the child, which had quickened about the fourth month, moved, and on these occasions the child seemed to her to rise up as high as the epigastric region. In this state the poor woman continued until about a week before the natural period of labour, when her breafts became full of milk, and a small quantity of blood and mucus flowed from the vagina. vagina. The milk deferted the breafts, and the uterine discharge ceased, both at the same time, after a very fhort continuance. At the completion of the nine months, regular, but very gentle, labour pains came on; these being inefficient, were appealed by a proper dole of laudanum, the attending furgeon judging them to be only what are stiled grinding pains. Nearly in the course of a week the same kind of pain recurred; but was now conftant, inalternate, and particularly affected the back and iliac regions. At this time also a slight colouring iffued from the vagina, and a copious flow of milk from the mammæ. This fort of pain was removed too by laudanum, and never returned.

Under circumstances so striking and uncommon, I could not trust to my own judgement, especially as I did not practise midwifery, and therefore requested the opinions of the most eminent of that profession in Durham. On examination, the os uteri was found almost close to the orifice of the vagina. It was the general sentiment that there did exist a sectus, but whether extra-uterine or not could not be determined. It was agreed that the patient was too much reduced to undergo any operation;

tion; and that she must be left to nature in a great measure, only persevering in the mild and palliative means which had been previously recommended.—I continued my attendance.

On the 8th of May my patient discharged by stool four quarts of very offensive purulent matter, mixed with blood. Most evident relief of all the hestic symptoms succeeded to this evacuation; her appetite was much improved, and the tumour of the abdomen had greatly subsided. She did not long enjoy this stattering respite; in the space of a week all the unfavourable signs returned, and within the ensuing six weeks she was relieved by death from all her misery.

I obtained leave to have the body opened.—On diffection the appearances were as follow: The round and broad ligaments, and all the appendages of the womb, together with almost the whole of its substance, were consumed; and there remained only a thin, moist, calcarcous or earthy shell, which nearly enveloped a perfect setus. These remains of the uterus rested upon the facrum, having sunk down to the bottom of the pelvis. The head of the child occupied the fundus uteri, the substance of which had been so entirely wasted away,

that

that the hairy scalp was left uncovered, and was separating from the subjacent cranium. The whole was so putrid as to emit a most intolerable steneh, and could not be preserved.

The vifcera of the abdomen were all of them found and perfect; and no ulceration could be perceived in any part of the alimentary canal, though carefully fearched after. On cutting into the great intestines, they were found to be replete with the same kind of substance, in a sluid state, as composed the earthy tegument of the child in the pelvis.

We were not allowed to examine the contents of the head or thorax: but it is prefumed that both were found, as the patient's intellects were preferved to the last, and there were no symptoms of diseased lungs # during her life. She was fix and thirty years of age; of a fair complexion; had been a stout, well-formed woman; and had borne a child about seven years previous to her death.

^{*} The dyspnæa, mentioned amongst the other symptoms; seems to have been owing to the pressure of the tumesied stomach and abdomen against the diaphragm, preventing its descent and the free expansion of the lungs, and not to any morbid affection of the latter.

I fear the melancholy case just recited will not admit of much useful application, which is the grand aim of all research. One remark or two, however, I beg leave to fubjoin to this very fingular medical history. A very obvious distinction may be traced upon the face of it. between the wonted preparations which nature made to bring forth the infant, and the fymptoms which were produced by the accident. Let us make the comparison. - The pain, in the different circumstances, was different in its degree and continuance. A discharge, such as occurs previous to labour in all natural cases, appeared also in this; but one of a very different kind iffued constantly from the vagina, especially during the last weeks of the patient's life. The inference to be drawn from this comparison is this - that the efforts of nature are wonderful indeed, and deserve the highest confidence of practitioners. In the present instance, the uterus itself being diseased, was unable to perform the functions of delivery, and, after some faint attempts, its operations in the usual way ceased, whilst others were undertaken of a different kind indeed, but no less owing to the exertions of the vis medicatrix Vol. VIII. PART I. nature.

natura. This will appear, perhaps, more clearly by attempting the probable pathology of the case. - It is not unlikely that a laceration of fome of its ligaments, or of the womb itself. was the immediate effect of the poor woman's raising the pail of water to her head. Inflammation and suppuration ensued; the matter partly passed off per vaginam, and a part of it was also absorbed and conveyed into the bowels, from whence it was discharged by stool. The thinner parts being first taken up by the absorbents, the more folid earthy matter, which forms the basis of the solida viva, remained to the last, forming the earthy tegument or shell above mentioned. Nature was busied in removing this also, when, being exhausted by too-long-continued exertions, she was obliged to give up the struggle.

New Street, Spring Gardens, Jan. 24th, 1787. VII. Farther Account of a Case of Mollities Offium *. By Mr. W. Goodwin, Surgeon at Earl Soham, in Suffolk. Communicated in a Letter to Dr. Hamilton, Physician at Ipswich, and by him to Dr. Simmons.

THE extraordinary foftness of the bones in the case of Mary Bradcock, of Dalinghoe, near Wickham market, in Suffolk, concerning which I did myself the pleasure of writing to you in August, 1785, has been rendered much more singular since by a variety of circumstances, with an account of which I now beg leave to trouble you.

At the date of my former account she was in the fixth month of her ninth pregnancy, and had been confined to her bed near twelve months. At the usual period she was delivered of a healthy male child that lived sifteen weeks; and being enabled, by the benevolence of the humane persons who contributed to her relief, to procure all the comforts her forlorn state admitted, she regained a better state of health than she had known for some time before,

During the fpring of 1786 she continued in good health and spirits; but complained at

* See Vol. VI. page 288,

times of pain flying from bone to bone. About the beginning of April she again became pregnant, but had no alarming symptoms till August, when the pain of her bones increased rapidly, and those which had been broken in 1785 began to separate where they had united with as great, or even more, pain than at their first breaking. This excruciating pain, which she suffered for several days previous to the dissolution of the callus, rendered her continually severish from the irritation, and she declined hastily in health and appetite.

Violent pain now feized fresh parts of the bony system, which, after a continuance of six or seven days, was sufficient to occasion new fractures, viz. of three ribs, and of each arm above and below the elbow, making, together, seven fractures, which, with the eight that happened in 1785, and the dissolution of their union the year following, make no less than twenty-three fractures which this unhappy woman suffered within the space of about two years and a half, and all without any violence, and chiesly while consined to her bed, in which she passed the whole of the last year of her life, laying constantly on her lest side. You will be pleased to observe also, that in 1785

the pain continued feveral weeks before a fracture took place, but that of late a few days were fufficient to dispose the bones to give way.

She died on the 19th of December last, aged four and thirty years. Her bones, when examined after death, were found to be so extremely soft, that even those of her arms could be easily cut through with a small penknise. The bones of the cranium had not escaped the effects of the disease, as they could easily be indented with the pressure of a singer. Of all the bones, those of the lower extremities had suffered the least, and but little softness was observable in them: the back bone, on the contrary, was a good deal affected, for it was nearly as soft as cartilage.

With some difficulty the byestanders were persuaded to permit me to take off the left arm at the shoulder. This I shall keep for a few days for the inspection of the curious in the country, and shall then send it * to your friend, Dr. Simmons, to elucidate and prove the general truth of my narrative.

^{*} It is now in the possession of Mr. Hunter, to whom we are indebted for some valuable observations on this curious disease of the bones, which the reader will find in the next article. — EDITOR.

It was observed in the former account *, that several of the patient's family had been afflicted with scrophula, but she herself had no symptoms of that disease externally. How far her extraordinary sufferings might be owing to any acrimony of that kind affecting the bony system, I will not pretend to determine.

Earl Soham, January 3d, 1787.

VIII. Observations on the Case of Mollities Ossium described in the preceding Article; with some general Remarks on that Disease. Communicated in a Letter to Dr. Simmons by John Hunter, Isl. F. R. S., Surgeon Extraordinary to the King.

BEG lease ceturn you my thanks for your attention in feeding me the very curious arm of the subject affected by the mollities offium; and as you propose to publish the case in the next part of your Medical Journal, I have fent you some general observations upon the disease, with a few remarks on the diffec-

tion of this arm: thefe, if you think they will render the account more complete, may be annexed to it.

This disease, commonly known by the term Mollities Offium, in the adult, is, in my opinion, a species of the rickets which is pecular to youth, and arises from a disposition for abforption of the substance of a bone, or a difproportion between the powers of depositing new matter and those of removing the old: this, in many instances, has been carried to a much greater extent in the full grown than in the young subject; for in the most rickety child I have ever feen there was always fome earth in the bones; but I have feen them in the adult fo foft from the lofs of the calcareous earth, that they have been almost as flexible as a tendon, and fuch bones have had little or nothing of the appearance of the natural animal part of a bone when only deprived of the earth; therefore they are not composed of the original animal part, but a new deposit of animal fubstance in a different form.

In fome of these bones it is curious to see the effects produced by the two different dispositions. In one part of the bone the offisic disposition is taking place, and forming bone in the cavity, and in fome places on the furface, of the original bone; but the disposition for abforption goes on too fast for the offisic, and even absorbs portions of the newly-set-up offisications.

Previous to my examination of the arm from the person whose case has been communicated to you, I injected the arteries, with a view to see if any alteration had taken place in that system of vessels; and in the dissection I obferved the following appearances:

The muscles, blood vessels, nerves, and abforbents, as far as they could be examined, were in no way remarkable.

The os humeri was more vascular than is common, from which we may conclude the other systems of vessels were also increased; and it is probable that the absorbents were principally so, for we may remark, that whenever a part has greater actions to carry on than what are natural to it, the number of vessels which are the active parts of the body are always increased.

The bones of the fingers were lighter and less compact than common. Those of the metacarpus were in some degree softer; the radius and ulna were still more so, and the os humeri

was, if the expression is admissible, completely diseased.

As I had not an opportunity of examining the different bones of the body, nothing can be afcertained refpecting the difease being confined to particular bones, or its affecting equally those of the trunk and extremities; but the ribs could not have been equally diseased with the os humeri, without affecting the respiration so materially as to have made the patient very uncomfortable from that cause, which, as appears in the account, was not the case; for although the diaphragm might have acted very well, it is necessary that it should have a circle of fixed points to act from to produce its effects in respiration.

The os humeri retained its fliape externally, and the cartilages at both the articulations appeared not in the leaft affected.

The component parts of the bone were totally altered, the structure being very different from other bones, and wholly composed of a new substance, resembling a species of fatty tumour, giving the appearance of a spongy bone deprived of its earth and soaked in soft fat. This structure was most remarkable under the external samella, which was not so much al-

VOL. VIII, PART I. K tered,

tered, making a kind of case for the other, and having the periosteum adhering to it, the whole could be readily cut with a knife.

Near to the condyles a portion of this fubflance had been deficient for nearly two inches of the bone's length; and the outer shell at this part filled with a bloody fluid contained in cells. This part of the bone readily bent, and in the living body had been mistaken for a fracture; there was a similar appearance a little higher up than the middle of the bone for nearly an inch in length.

The radius and ulna exhibited the fame fructure and appearances as the os humeri, and were also free from any absolute fracture, but had portions of the internal flructure deficient, and the space filled up by a bloody fluid.

It is probable that those parts which gave way first to the action of the muscles and other circumstances, and which appeared to be fractures, had those parts afterwards absorbed from a kind of necessity, stimulating the absorbents to remove the parts so affected.

Leicester Senare, March 1, 1787. IX. Farther Observations on the Assion of Lime Water and Magnesia on common Peruvian Bark. By Thomas Skeete, M. D., Physician to the New Finsbury Dispensary.

R. Irving having, in the last volume * of the London Medical Journal, endeavoured to invalidate the conclusions which I have drawn on this subject in my Treatise on Bark, I shall now add a few remarks, which, I trust, will confirm my former opinions. I must observe, in the first place, that Dr. Irving has entirely mistaken my experiments, when he alledges, that, in comparing the weight of an infusion of bark in lime water with the common infusion, I had not attended to the weight of the lime. He will find, by referring to them with attention, that I have not been guilty of the inaccuracy with which he has charged me, the comparison having been first made between the infusion in lime water and lime water itself, and then the proportion of bark which had been diffolved compared with the increase of weight in the fimple infulfion. - Dr. Irving has also objected to the high red colour of the infusion of bark

* Vol. VII. page 419.

in lime water as a proof of its strength; and had I rested it on this or any other single circumstance, I might probably have failed in my attempt. He observes, that he can at pleasure produce the colour by adding a portion of lime water to a fimple infusion; but that this, in. flead of rendering the folution more complete, precipitates a quantity of the fuspended matter. He accounts, therefore, for the red colour of an infusion of bark in lime water from the want of that matter, the deposition of which from the simple infusion produces the red colour. This matter, he thinks, is of a gummy nature, and capable of affecting the rays of light in fuch a manner as to produce the paleness of the fimple infusion. Although this theory may at first fight appear ingenious, it will be found, on examination, to be very inadequate to the purpose; for if some of the sal sodæ be added to an infusion of bark, it produces a deeper red colour than that which arises from the addition of lime water, without the flightest appearance of precipitation. The precipitation of a gummy matter being effential to the production of the colour, according to Dr. Irving, and the colour, as we have just seen, being produced by the fal fodæ, without fuch precipitation,

this

this idea of the subject must necessarily be crroneous.

But that the colour is not entirely to be given up as one proof of the strength of the infusion of bark in lime water, or as a circumstance accompanying other more satisfactory proofs, will appear from what follows: - If, for example, the colour of an infusion of bark, carefully prepared with lime water, by rubbing them together, be compared with a mixture of lime water and infusion of bark, a remarkable difference will be perceived; the first being of a fine bright red colour, and transparent; the last being only of a dirty reddish colour. The former possesses a strong bitter astringent tafte; the latter is almost insipid. The one is an efficacious remedy in the cure of feveral difeases; the latter cannot be depended upon. The only conclusion therefore to be drawn from Dr. Irving's observations is, that the effects produced by bark and lime water are different, according to the manner and proportions in which they act upon each other; and this is what I have endeavoured to inculcate both with regard to lime and magnefia. To administer bark and lime water with effect, we should direct the lime water to be carefully tubbed with

the bark; avoiding the inelegant and comparatively inefficacious method of adding the lime water to an infusion or decoction of bark previously prepared.

The proof of the strength of the infusion of bark in lime water, deduced from the addition of the fal martis, I confess, was in part erroneous, at least, I should have taken notice of the decomposition of the salt, by means of the lime, and the confequent formation of gypfum. I am ready to grant to Dr. Irving, that the precipitation partly depended on the gypfum, and on the calx of iron necessarily deposited during the decomposition: but I cannot so readily give up the proof arising from the very dark or black colour of the precipitate, this being a strong evidence of the greater degree of aftringency in fuch an infusion. Dr. Irving, indeed, affirms, that by lime water alone, added to a folution of fal martis, he can obtain a ferrugineous precipitate, equally black with that which I have described. I find, however, on making the comparison, that the precipitate from fal martis, by means of lime water, is of a fine blue colour; whereas, the precipitate from an infusion of bark, prepared with lime water, is very dark coloured, or black; this

circumstance, therefore, must still be admitted as one proof of the strength of such a preparation. The marks of astringency were still more obvious in the preparation of bark with magnesia; for I have mentioned in page 28 of my treatise, that when a solution of sal martis was added to an insusion of this kind, a very deep black colour was produced.

As my pursuits do not permit me to enter into a minute detail on this, or any other chemical subject, I shall rest satisfied with what I have already advanced, especially as the good opinion I entertain of the preparations of bark in question, is not supported by chemical proofs only, but by their effects on the body, which I confider as more fatisfactory. Dr. Irving feems to rely entirely on the chemical properties, which will frequently be found fallacious, the greatest accuracy and chemical knowledge being fometimes infufficient to guard against the accidents which tend to alter the refult of fuch nice experiments. At the time that I published my observations on bark, I afferted the efficacy of the preparation with lime water without hefitation, as I had frequently feen it used, and had received the best accounts of it from several practitioners who had long employed

ployed it. I could not then speak with equal certainty of the preparation with magnesia, as many successful cases are required to establish a remedy of this kind, nor have I yet had sufficient experience with regard to it. Such trials, however, as I have made with it, have tended to confirm the good opinion which I formed of it, from its sensible qualities and chemical properties. When well prepared, it is certainly a very elegant medicine. Its beautiful colour and transparency, and the length of time it will temain free from fermentation, are very striking advantages, and will, I trust, bring it at length into general use.

The following is the formula which I commonly employ.

R. Pulv. cort. Peruv. zss.
Magnef. alb. calcinat. zj.

Tere fimul probe ad quartam horæ partem cum pauxillo aq. pur. ut fiat pasta; dein adde paulatim aq. pur. zix. Infunde postea per semihoram, vase subinde agitato, & liquorem per chartam cola.

The whole of the above quantity may be conveniently taken in a day, in divided dofes

of three or four table spoonfuls, in the same manner as the common infusion of bark.

X. An Account of the successful Extirpation of a remarkable Schirrus of the Scrotum. Communicated in a Letter to Dr. Simmons by Mr. Richard Hall, Surgeon to the Manchester Infirmary.

THOMAS Rhodes, fifty years of age, a very muscular man, and of a healthy aspect, was admitted into the Manchester Insirmary, on the 17th of October, 1785. He gave this account of himself: that between ten and eleven years ago, he had a small indolent tumor formed in the coats of the scrotum, on the left side, totally independent of the testicle, and which grew to the size of a hazel nut, when by means of some applications it rather lessened, but soon began gradually to enlarge again, so that it now hung down below his knees.

The burden was become so inconvenient, and at times so painful, that he was very anxious for the removal of it. He walked about with seemingly much freedom, and could Vol. VIII. Part I.

raise and move it to any direction. It was remarkable, that he could never wear a suspenfory, as it occasioned so much pain in the tumor.

He made little complaint of any uncafiness in the loins, but chiesly in the abdominal muscles, and was then subject to colic pains. On the lower and posterior part was a fore, which discharged a very section ichor.

The parts which ought to cover the os pubis were drawn down confiderably below it; and the right abdominal ring was so dilated, as to occasion a large hernia. The spermatic chords seemed to be free from disease; the penis was entirely buried; but he voided his urine treely.

The dimensions of the tumor, the figure of which was rather irregular, were as follows, viz.

From the os pubis to where the præputium appeared, thirteen inches and a half:

From the os pubis to the lower extremity of the tumor, twenty-two inches and a half:

Leffer circumference of the tumor, below the os pubis, eighteen inches:

Largest circumference, three feet four inches.

After

After extirpation, and when free from all fluid contents, it was found to weigh thirty-fix pounds and a half.

The patient lay upon a table, to which was fixed the back part of a wooden chair, which fupported the tumor. The operation proved tedious, from the necessary slowness, and securing the vessels as they were divided; notwithstanding which, he lost a good deal of blood; so that he fainted frequently, and was once convulsed.

I began the ineision on the right side, about fix inches below the os pubis, carrying it nearly to the center of the tumor, and from thence brought it down in a straight line to where the prepuce appeared, which led me to a discovery of the right spermatic chord and penis. The latter I carefully diffected out, leaving a small part of the prepuce to it. The incision being then carried across as at first, exposed the left spermatic chord, and I soon found both testicles entirely free from disease: but as they were denuded, and future bad consequences were apprehended, it was thought prudent to remove them. This I did by making ligatures round the chords, and then dividing them with the scalpel; and from this method I was pleased

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to find no inconvenience ensue. I was then employed in diffecting away the schirrus as clean as possible from the skin, of which I lest so much, as to completely cover the wound, and the edges were secured by ligatures and sticking plaster: but the penis was so much elongated, as to be lest quite bare.

For three or four days after the operation he had a good deal of fever, which abated on the coming on of the digestion, which was very good on the fifth day, and the union of the skin began then to take place. The penis gradually contracted, and the prepuce served for a point of cicatrization, meeting with that from the parts above; so that the whole was completely healed, and my patient was discharged, cured, Dec. 26th, in nine weeks from the time of the operation.

He now, at the expiration of a year, remains perfectly well, except for the hernia, which is lefs, and for which he wears a truss.

I believe this to be a very fingular case, and can no where find mention made of the extirpation of any thing similar to it. Many cases are given us of enlarged scrotums, or rather of sarcoceles, in all of which the testicles were diseased, and gave origin to the complaint;

whereas, here the disease was entirely confined to the scrotum, which was a true schirrous mass, so hard as to resist all impression of the hand. This tumor bore a great resemblance to that of the negro mentioned by Cheselden*; but as that was occasioned by the kick of a horse, it is probable that one or both testicles had received an injury: and the very remarkable one described by Dr. Schotte*, was supposed to be an endemial disease of the testicles.

Manchester, January 30, 1787.

XI. An Account of a curious Fact relative to the Effects of crude Mercury. Communicated in a Letter to Dr. Simmons by Michael Underwood, M. D. Physician to the British Lying-in Hospital, and Licentiate in Midwifery of the Royal College of Physicians, London.

A LTHOUGH the internal exhibition of crude mercury has not been without its advocates, ever fince its introduction into me-

dicinal

^{*} Anatomy of the Human Body. Fourth edition. Tab. 26. + See the Philof. Tranf. Vol. LXXIII. and the London Medical Journal, Vol. V.

dicinal use, yet it was confined to a very small number of diseases, till the time of Dr. Dovar. His account of its virtues ought, perhaps, to be taken with confiderable limitations; but the most eminent physicians since his time have been in the habit of prescribing it, in common with other uncertain remedies, in many complaints difficult of cure, or ill understood. In fuch cases, it has in many instances proved eminently ferviceable; but though generally accounted perfectly innoxious, fome physicians have entertained feruples in this respect, and have argued, a priori, that it must be likely, from different causes, to be absorbed in its pasfage through the primæ viæ, and to raife a falivation; as the æthiops mineralis, and even the mercurius alcalizatus have, in fome intrances, been reported to do. I know of no fach instance, however, upon record, with regard to the crude mercury, and on that account prefume the following fact may appear to you of sufficient importance to merit a place in your Medical Journal.

A clergyman of my acquaintance, who for more than thirty years has been afflicted with afthma, and at different times been thought unlikely unlikely to furvive many days, above twenty years ago having been advised to take crude mercury, received great benefit from it, and, I believe, is indebted to it for the preservation of his life; for I have known him recovered from several very violent attacks by a steady adherence to the use of this remedy. After repeated instances of this kind, he was so much in the habit of taking it, that above two years ago he had swallowed to the amount of upwards of an hundred weight of quicksilver.

Since that time, the improved state of his health, though he is now upwards of fixty years of age, having enabled him to decline the use of his remedy for feveral months, he happened to be feized with an intermittent, and had recourfe to the powder of bark, which he took in large While he was under this course, a friend, who had been lately feized with afthma, happening to call upon him, the clergyman advised him to make a trial of his favourite medicine; and his friend upon hearing fuch a fatisfactory account of it was ready enough to comply: but inquiring, with folicitude, how he might be able to swallow so unmanageable a fluid, the clergyman very readily furnished him with

with the best directions, by swallowing an ounce of it in his presence. The consequence of this friendly recommendation of his catholicon, was a salivation, which took place in about eight and forty hours, and continued very severely for eight or ten days, producing soul and painful sores in the mouth, and essentially impairing his health.

How far the large quantity of the bark he had taken, or any other circumstances, might contribute to occasion such a change in the effect of a medicine that usually makes its way without any sensible operation, I shall not venture to inquire; but content myself with communicating to you a curious fact, without attempting to explain it.

Great Marlborough Street, Feb. 26, 1787.

XII. An Account of the late Dr. Hugh Martin's Cancer Powder; with brief Observations on Cancers. By Benjamin Rush, M. D., Profeffor of Chemistry in the University of Pennsylvania.—From the Transactions of the American Philosophical Society, held at Philadelphia, for promoting useful Knowledge, Vol. II. 4to. Philadelphia, 1786.

↑ FEW years ago a certain Dr. Hugh Mar-A tin, a furgeon of one of the Pennfylvania regiments stationed at Fort Pitt during the latter part of the late war, came to this city. and advertised to cure cancers with a medicine which he faid he had discovered in the woods in the neighbourhood of the garrison. As Dr. Martin had once been a pupil of mine, I took the liberty of waiting upon him, and asked him fome questions respecting his discovery. His answers were calculated to make me believe that his medicine was of a vegetable nature, and that it was originally an Indian remedy. He shewed me some of the medicine, which appeared to be the powder of a well-dried root of some kind. Anxious to see the success of this medicine in cancerous fores, I prevailed upon the Doctor to admit me to fee him apply VOL. VIII. PART I. M it

it in two or three cases. I observed in some instances he applied a powder to the parts affected, and in others only touched them with a feather dipped in a liquid which had a white sediment, and which he made me believe was the
vegetable root diffused in water. It gave me
great pleasure to witness the efficacy of the
Doctor's applications. In several cancerous ulcers, the cures he performed were complete.
Where the cancers were much connected with
the lymphatic system, or accompanied with a
scrophulous habit of body, his medicine always failed, and in some instances did evident
mischief.

Anxious to discover a medicine that promised relief in even a few cases of cancers, and supposing that all the caustic vegetables were nearly alike, I applied the phytolacca or poke root, the stramonium, the arum, and one or two others, to foul ulcers, in hopes of seeing the same effects from them which I had seen from Dr. Martin's powder; but in these I was disappointed. They gave some pain, but performed no cures. At length I was surnished, by a gentleman from Fort Pitt, with a powder which I had no doubt, from a variety of circumstances, was of the same kind as that used by Dr. Mar-

tin. I applied it to a fungous ulcer, but without producing the degrees of pain, inflammation, or discharge, which I had been accustomed to see from the application of Dr. Martin's powder. After this, I should have suspected that the powder was not a simple root, had not the Doctor continued upon all occasions to assure me that it was wholly a vegetable preparation.

In the beginning of the year 1784 the Doctor died, and it was generally believed that his medicine had died with him. A few weeks after his death I procured from Mr. Thomas Lieper, one of his administrators, a few ounces of the Doctor's powder, partly with a view of applying it to a cancerous fore which then offered, and partly with a view of examining it more minutely than I had been able to do during the Doctor's life. Upon throwing the powder, which was of a brown colour, upon a piece of white paper, I perecived distinctly a number of white particles feattered through it. I suspected at first that they were corrosive sublimate; but the usual tests of that metallic falt foon convinced me that I was mistaken. Recollecting that arfenic was the basis of most of the celebrated cancer powders that have been M ufed

used in the world, I had recourse to the tests for detecting it: Upon sprinkling a small quantity of the powder upon fome coals of fire, it emitted the garlie smell so perceptibly as to be known by feveral perfons whom I called into the room where I made the experiment, and who knew nothing of the object of my inquiries. After this, with fome difficulty I picked out about three or four grains of the white powder, and bound them between two pieces of copper, which I threw into the fire. After the copper pieces became red hot, I took them out of the fire, and when they had cooled, difcovered an evident whiteness imparted to both of them. One of the pieces afterwards looked like dull filver. These two tests have generally been thought sufficient to distinguish the prefence of arfenic in any bodies; but I made use of a third, which has lately been communicated to the world by Mr. Bergman, and which is supposed to be in all cases infallible.

I infused a small quantity of the powder in a solution of a vegetable alkali in water for a sew hours, and then poured it upon a solution of blue vitriol in water. The colour of the vitriol was immediately changed to a beautiful green, and afterwards precipitated.

I shall close this paper with a few remarks upon this powder, and upon the cure of cancers and foul ulcers of all kinds.

The use of caustics in cancers and foul ulcers is very ancient, and universal; but I believe arsenic to be the most efficacious of any that has ever been used. It is the basis of Plunket's and Guy's well-known cancer powders. The great art of applying it successfully is to dilute and mix it in fuch a manner as to mitigate the violence of its action. Dr. Martin's composition was happily calculated for this purpose. It gave less pain than the common or lunar caustic. It excited a moderate inflammation, which separated the morbid from the found parts, and promoted a plentiful afflux of humours to the fore during its application. It feldom produced an escar: hence it infinuated itself into the deepest recesses of the cancers, and frequently separated those fibres in an unbroken state, which are generally called the roots of the cancer. Upon this account, I think, in an ulcerated cancer it is to be preferred to the knife. It has no action upon the found skin. This Dr. Hall proved by confining a small quantity of it upon his arm for many hours. In those cases where Dr. Martin used used it to extract cancerous or schirrous tumours that were not ulcerated, I have reason to believe that he always broke the skin with Spanish slies.

2. The arfenic used by the Doctor was the pure white arfenic. I should suppose, from the examination I made of the powder with the eye, that the proportion of arfenic to the vegetable powder could not be more than one-fortieth part of the whole compound. I have reason to think that the Doctor employed different vegetable substances at different times. The vegetable matter with which the arfenic was combined in the powder which I used in my experiments, was probably nothing more than the powder of the root and berries of the folanum lethale, or deadly nightshade. As the principal, and perhaps the only, defign of the vegetable addition was to blunt the activity of the arfenic, I should suppose that the same proportion of common wheat flour as the Doctor used of his caustic vegetables would answer nearly the same purpose. In those cases where the Doctor applied a feather dipped in a liquid to the fore of his patient, I have no doubt but his phial contained nothing but a weak folution of arsenic in water. This is no new method of applving

plying arfenic to foul ulcers. Dr. Way, of Wilmington, has spoken in the highest terms to me of a wash for foulnesses on the skin, as well as old ulcers, prepared by boiling an ounce of white arsenic in two quarts of water to three pints, and applying it once or twice a day.

3. I mentioned formerly, that Dr. Martin was often unsuccessful in the application of his powder. This was occasioned by his using it indifcriminately in all cases. In schirrous and cancerous tumours, the knife should always be preferred to the caustic. In cancerous ulcers, attended with a scrophulous or bad habit of body, fuch particularly as have their feat in the neck, in the breafts of females, and in the axillary glands, it can only protract the patient's miscry. Most of the cancerous fores cured by Dr. Martin were feated on the nose, or checks, or upon the furface or extremities of the body. It remains yet to discover a cure for cancers that taint the fluids, or infect the whole lymphatic fystem. This cure I apprehend must be fought for in diet, or in the long use of some internal medicine.

To pronounce a disease incurable, is often to render it so. The intermitting sever, if lest to itself, would probably prove frequently, and perhaps more speedily fatal than cancers. And as cancerous tumours and sores are often neglected, or treated improperly by injudicious people, from an apprehension that they are incurable, (to which the frequent advice of physicians, "to let them alone," has no doubt contributed) perhaps the introduction of arsenic into regular practice, as a remedy for cancers, may invite to a more early application to physicians, and thereby prevent the deplorable cases that have been mentioned, which are often rendered so by delay, or unskilful management.

4. It is not in cancerous fores only that Dr. Martin's powder has been found to do service. In sores of all kinds, and from a variety of causes, where they have been attended with fungous slesh or callous edges, I have used the doctor's powder with advantage.

I flatter myself I shall be excused in giving this detail of a quack medicine, when the society reflect, that it is from the invention and temerity of quacks, physicians have derived some of their most active and useful medicines. XIII. The antiseptic Virtues of vegetable Acid and marine Salt combined, in various Disorders accompanied with Putridity; communicated in a Letter to John Morgan, M. D., F. R. S., and Professor of the Theory and Practice of Physic at Philadelphia, by William Wright, M. D., of Trelawney, in Jamaica.—From the Transactions of the American Philosophical Society, Vol. II.

AVING experienced the virtues of vegetable acid and marine falt, when combined, I beg leave to lay before you a few observations on the use of this simple medicine in several diseases. It is my sincere wish, that it may prove as beneficial to mankind in general, as it has been to many of my patients in this part of the country.

Take of lime juice, or lemon juice, three cunces; of marine falt as much as the acid will dissolve; of any simple distilled cordial water, one pint; and of loaf sugar a sufficient quantity to sweeten it. The dose of this mixture must be proportioned to the age and sex of the patient, and to the violence of the disease. A wine-glassful may be given to adults every two, four, or six hours.

By Geoffroy's table it appears, that the fosfil alkali has a greater affinity with the marine, than with the vegetable acid. However, marine salt dissolves readily in the lime juice, throws up a white scum to the surface, and on applying the ear near the vessel where the experiment is made, a small hissing may be heard, similar to that when acids and alcalies are mixed. It would seem probable, that part of the marine salt is hereby decomposed.

That vegetable acids and marine falt are antifeptics, has long been known; but their effects when mixed I apprehend to be but lately discovered.

Without farther preface, I shall proceed to the particular diseases in which they have been administered, prepared as above.

Of the Dysentery.

The dysentery is a very frequent disorder in this and other West-India islands; and sometimes is epidemic, particularly in the rainy seafons, or when provisions are scarce. Amongst other causes of dysenteries, I have often known the eating of yams not arrived at maturity, as also unripe alligator pears, produce a bloody flux.

Dysenteries commonly begin with frequent loose stools for a day or two, attended with gripings: by degrees, the gripes grow more severe; nothing is voided by stool but a small quantity of mucus, mixed with blood; a tenesmus comes on, and is exceedingly troublesome.

The appetite fails, the patients are low spirited, and suffer a great prostration of strength. The mouth and tongue are much furred and slimy, and the taste is like that of rotten butcher's meat. The desire of drink is sometimes excessive, but for the most part very moderate. The pulse is very low, seeble, and undulating; and rarely rises so high, as to indicate the use of a lancet. Such was the dysentery in 1771. It proved fatal to many people, both old and young, though treated according to the most approved methods of cure; and the loss of several patients of mine, convinced me of the necessity of using antiseptics early in this disease.

A vomit feemed necessary to clear the stomach; and some gentle purge, to carry off part of the offending matter by stool. But the action of these, however mild, often increased the prostration of strength, and rendered the

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ftools

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stools sooner bloody. Nor was opium of any real use. A tea made of Simarouba, had, in some, a very salutary effect, whilst, in others, it would by no means remain on the stomach.

From a confideration of the antiseptic quality of both the marine salt and the vegetable acid, I was induced to make trial of their effects united in the manner above mentioned. The medicine acted like a charm; and I have found, that from the use of it, the frequency of the stools, the gripes, and tenesmus, have soon worn off; the stools have gradually become of a natural consistence and quantity; the spirits, strength, and appetite have returned, and the patient has been restored to perfect health in a very sew days.

When the dysentery was of long standing, starch clysters, with a small portion of opium, abated the tenesimus.

This medicine was equally ferviceable in diarrhœas.

Diabetes.

As I had succeeded so well in the cure of dysenteries, I was determined to try its effects in the diabetes; several opportunities soon offered: but as these cases were accompanied with

with other complaints, especially with severs of the remitting kind, it will be proper first to speak of

The Remittent Fever.

This, by far the most common fever within the tropics, is the least understood, and confequently for the most part badly treated. Strangers who walk much, or work hard in the heat of the sun, are more subject to it than seasoned Europeans, or natives of the country.

Dr. Cleghorn's description of this fever is accurate and just; his method of cure, simple and easy. Every physician, who would wish to practise with success, should be well acquainted with his valuable performance, as also with what Dr. Lind has said on the subject.

It is, then, sufficient here to observe, that remittent severs are often attended with diarrhæas, diabetes, and sometimes with a copious discharge of saliva, as if mercury had been previously given. In such circumstances I have never found the bark of service; a few glasses of the above mixture have fully answered the intention, not only by removing these symptoms, but the sever at the same time.

The

The Peruvian bark afterwards, taken with some of the same mixture, has effectually secured the patient from a return of this dangerous malady.

The mixture rarely acted as an astringent in this or any other disorder: but when this effect took place, the interposition of some lenient purge was deemed necessary.

Belly-ach.

The belly-ach with inflammatory symptoms has frequently occurred in the course of my practice. The inflammatory symptoms yielded with difficulty to bleeding, small doses of emetic tartar, a mercurial pill, repeated doses of castor oil, and diluting drinks, with nitre, fomentations, and clysters. A copious discharge of settid excrement for the most part gives immediate relief.

I have observed in many cases, after excruciating belly-achs, that the stools were liquid, white, small in quantity, and very sætid. The patients being worn out with pain, grew dispondent, did not care to speak, fell into cold, clammy sweats, and were very restless. They complained of an ill taste in their mouths. Their tongues were much furred. Their breath

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was offenfive; and they had a great propenfity to vomit.

Formerly I attempted the relief of those threatening symptoms with the bark, in various forms, as well as claret, and often saved my patient; sometimes, however, I have failed of success. When such cases fall now under my care, I have immediate recourse to the antiseptic mixture; nor have I been hitherto disappointed: the stools becoming less frequent on the use of it, and of a better consistence; the cold sweats also disappear, and the spirits soon return, together with an appetite for food.

The Putrid Sore Throat.

In June 1770, the putrid fore throat made confiderable havock amongst adults and children. It attacked those of a lax habit, who for a few days had slight head-achs, chilliness and heats alternately, and an uneafiness about their throats, but not so much as to hinder their swallowing.

On examination, the mouth, tongue, and gums were foul and flimy; the tonfils and uvula covered with white specks or floughs; the breath was hot and offensive; the skin felt hot and pungent to the touch; the pulse low and quick;

quick; a diarrhœa often attended, and the pastients were, in general, much dejected.

Antimonial wine with cordials and nourishing diet succeeded best, till the sloughs or spots were removed and separated; then the bark completed the cure. When a diarrhea accompanied this disorder, I gave the mixture with success.

In all disorders where a gargle is necessary, I make use of the above mixture in preference to any other; and I find it speedily cleanses the tongue, gums, and fauces, and sweetens the breath.

Where lemons or limes cannot be had, vinegar or cream of tartar may be substituted in their room.

From what has been faid, it is evident, that the medicine is possessed of considerable antifeptic power; and that its virtue consists in correcting the peccant matter in the stomach and intestinal canal.

All the diseases in which I have given it, had a putrid tendency. I shall be happy to hear of its success in your western hemisphere.

And am, with esteem, SIR,
Your most humble servant,
WILLIAM WRIGHT.

CATA-

CATALOGUE OF BOOKS.

BSERVATIONS in Midwifery, particularly on the different Methods of affifting Women in tedious and difficult Labours; to which are added, Observations on the principal Disorders incident to Women and Children. By William Dease, surgeon to the united hospitals of St. Nicholas and St. Catharine. 8vo. Dublin, 1783.

2. The chemical Effays of Charles William Scheele, translated from the Transactions of the Academy of Sciences at Stockholm, with Additions. Svo. Murray, London, 1786.

3. The Anatomy of the absorbent Vessels of the human Body. By William Cruikshank. 4to. Nicol, London, 1786.

4. Clinical Observations on the Use of Opium in low Fevers, and in the Synochus; illustrated by Cases, Remarks, &c. By Martin Wall, M. D. Lord Litchfield's clinical Professor, one of the Physicians to the Radclisse Infirmary, and late Fellow of New College, Oxford. 8vo. Cadell, London, 1786.

John Hunter, in his late Treatife on the vene-Vol. VIII. Part I. () real real Disease. By Jesse Foot, Surgeon. 8vo. Parts I. and II. Becket, London, 1786.

- 6. A practical Treatife on the Prevention and Cure of Difeases in general. By Dr. John Memis, Physician in Aberdeen, and a Manager of the Royal Infirmary in that City. 8vo. Aberdeen, 1786.
- 7. A Maritime State confidered, as to the Health of Seamen; with effectual Means for rendering the Situation of that valuable Class of People more comfortable. To which are annexed, some general Observations on the Diseases incident to Seamen; and an Appendix of additional Notes and Remarks in the order of the Work. By Charles Fletcher, M. D. late Surgeon in His Majesty's Navy. Svo. Dublin, 1786.
- 8. An Inquiry into the present State of medical Surgery, Vol. II. By Thomas Kirkland, M. D. Member of the Royal Medical Society at Edinburgh. 8vo. Dawson, London, 1786.
- 9. A Reply to Dr. Berkenhout's Dedication to each individual Apothecary in England, (prefixed to his Symptomatology.) By Somebody who is a Lover of Candour. 8vo. Rivington, London, 1786.
 - 10. Observations on certain Parts of the Animal

mal Oeconomy. By John Hunter. 4to. Lon-

don, 1787.

II. Short Directions for the Management of Infants. By T. Mantell, Surgeon, and Practitioner in Midwifery at Dover. 12mo. Becket, London, 1787.

12. An Account of the Effects of Swinging, employed as a Remedy in Pulmonary Confumption and Hectic Fever. By James-Carmichael Smyth, M. D. F.R. S. Physician Extraordinary to His Majesty. 8vo. Johnson, London, 1787.

13. A. Jos. Testa, Phil. et Med. D. in magno Ferrariensium Nosocomio, Med. et Chir. Prof. ord. De vitalibus periodis Ægrotantium et Sanorum: seu Elementa Dynamicæ Animalis. 8vo. 2 Vol. Johnson, London, 1787.

14. Tentamen Medicum Inaug. de Variolis inferendis. Auctore Georgio Bachmetiev, Moscoviense. 8vo. Edin. 1786.

15. Differtatio Medica Inaug. de Phrenitide idiopathica. Auctore *Thoma Burnside*, Hiberno. Svo. Edin. 1786.

16. Dissertatio Medica Inaug. de Rheumatismo acuto. Auctore Hugone Casement, Hiberno. 8vo. Edin. 1786.

17. Differtatio Medica Inaug, quædam de O 2 Morbo

Morbo Vencreo complectens. Auctore Nicolao Eliock, Hiberno. 8vo. Edin. 1786.

18. Disputatio Medica Inaug. quædam de Vestitu Lanco tradens. Auctore Johanne H. Gibbons, Pennsylvaniense. 8vo. Edin. 1786.

19. Differtatio Physica Inaug. de Igne. Auctore Hugone Gillan, Scoto. 8vo. Edin. 1786.

20. Differtatio Medica Inaug. de Morbo Morteque submersorum investigandis. Auctore Edmundo Goodwyn, Anglo. 8vo. Edin. 1786.

21. Tentamen Medicum Inaug. quædam de Placenta proponens. Auctore Jacobo Jeffray, Scoto. 8vo. Edin. 1786.

22. Dissertatio Chemica Inaug. de duabus Aeris speciebus Aquam gignentibus. Auctore Georgio Kirkaldie, Scoto. 8vo. Edin. 1786.

23. Tentamen Medicum Inaug. de reciproca atque mutua Systematis sanguinei et nervost Actione. Auctore Ignatio Maria Ruiz Luzuriaga, Cantaber-Hispano. 8vo. Edin. 1786.

24. Disputatio Physiologica Inauguralis circa novi Genituram Animalis. Auctore Samuele Latham Mitchill, de Civitate Novo-Eboraco. 8vo. Edin. 1786.

25. Differtatio Medica Inaug. de Colica Pictonum. Auctore Joanne Prendergast, Hiberno. 8vo. Edin. 1786.

26. Spi-

26. Spicilegium Medicum Inaug. de Morbillis. Auctore Jacobo Watson Roberts, ex infula Antigua. 8vo. Edin. 1786.

27. Tentamen Medicum Inaug. de Rubeola. Auctore Gulielmo Whitelaw, Hiberno. 8vo. Edin. 1786.

28. Samuelis Foart Simmons, Medici Londinensis, Observationes practicæ de Phthisi Pulmonali, quas ex Anglico idiomate in Latinum vertit F. A. Van Zandycke, M. D. 8vo. Brugis Flandrorum, 1786.

29. Observationes Medicinales de sebribus intermittentibus & qua ratione eisdem Medendum sit. Opus, quod Scientiarum Artium atque Literarum Academia Divionensis præmio coronavit die 11 Augusti, 1782. Auctore Carolo Strack, M. D. & in Universitate Moguntina Praxeos Medicæ & Collegii Clinici Professore, p. o. Eminentiss. ac Celsiss. Princip. Elector. Moguntini Consil. Aulic. &c. 8vo. Offenbach, 1785.

30. Wencestai Trnka de Krzowitz, S. R. I. Equitis, Medicinæ Doct. in Reg. Universit. Pestiensi Pathol. Prof. p. o. Historia Cardialgiæ, omnis Ævi Observata Medica Continens. 8vo. Vindobonæ, 1785.

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31. Des Maladies des Filles; par M. Chambon de Montaux, Medecin de la Faculté de Paris, de la Société Royale de Medecine. Pour fervir de suite aux Maladies des Femmes du même Auteur. 8vo. Paris, 1785, 2 vol.

32. Des Maladies de la Grossesse; par M. Chambon de Montaux. Pour completter l'Histoire des Maladies des Femmes du même Au-

teur. 8vo. Paris, 1785, 2 vol.

33. Observations sur les Maladies Veneriennes, par seu M. A. Nunes Ribeiro Sanchés; publiées par M. Andry. 12mo. Paris, 1785.

- 34. Methode de traiter les morsures des Animaux enragés, & de la Vipere; suivie d'un precis sur la Pustule maligne. Par M. Enaux, Professeur du Cours d'Accouchements des Etats de Bourgogne; et par M. Chausser, Professeur d'Anatomie des Etats de Bourgogne, &c. 8vo. Dijon, 1785.
- 35. Extrait des Registres de l'Academie Royale des Sciences, du 22 Novembre, 1786. Rapport des Commissaires chargés, par l'Academie, de l'examen du Projet d'un nouvel Hotel Dieu. 4to. Paris, 1786.
- 36. D. William Saunders Beobachtungen ueber die vorzueglichen heilkraefte der rothen Peruvianischen Rinde. Aus dem Englischen,

nach der dritten Aufgabe. 8vo. Leipfic, 1784.

37. Abhandlung von dem nutzen der Spanischen Flicgenpflaster in soporæsen Wechselsiebern, i. e. Essay on the Use of Blisters in soporose intermitting Fevers. By H. Wolff, M. D. Physician at Altona. 8vo. Altona, 1785.

38. Magazin fuer Apotheker, Chymisten und Materialisten. i. e. Magazine for Apothecaries, Chemists, and Druggists. By J. Carp. Philip Elwert. 8vo. Nurenberg, 1785.

39. Saturnus redivivus; einc neue Betrachtung ueber die Bleymittel, besonders ueber das Bleyextrakt; von einem Feldwundaerzte der K. K. Oesterreischen Armee. i. e. Saturnus redivivus; a new Treatise on Lead, particularly on the Extract of Lead. By a Surgeon of the Austrian Army. 8vo. Vienna, 1785.

40. Abhandlungen der Schwedischen Aerzte, oder Sammlung seltener Beobachtungen und Faelle, aus allen theilen der Medicin, vorzueglich aber aus der Praktischen Arzneywissenschaft und Chirurgie. i. e. Essays of the Swedish Physicians; or a Collection of rare Observations and Cases, in all Parts of Physic, but principally in the Practice of Physic and Surgery.

gery. Translated from the Latin by J. J. Roemer. Vol. I. 8vo. St. Gall, 1785.

41. Taschenbuch fuer Deutsche Wundaerzte. i. e. A Manual for German Surgeons, for the Years 1784 and 1785. 8vo. Altenburg, 1785.

42. Hippokrates Werke; aus dem Griechischen uebersetzt, und mit Erlæuterungen. i. e. The Works of Hippocrates, translated from the Greek, with explanatory Notes. By fohn Frederick Charles Grimm, M. D. Aulic Counsellor aud Body Physician to the reigning Duke of Saxe Gotha. Vol. II. 8vo. Altenburg, 1784.

43. Abhandlung von dem Krebs und der besten Heilart desselben. i. e. sA Treatise on Cancer, and the best Method of treating it. By J. H. Jaenisch, M. D. 8vo. 2d edition. Petersburgh, 1785.

44. De Ruptura Cordis preside Adolpho Murray pro gradu Doctoris disserit Petrus Gustav.

Tengmalm. 4to. Upfaliæ, 1785.

45. Dissertatio Chirurgica de tumoribus salivalibus; quam præside Adolpho Murray pro gradu Doctoris desendit Joannes Gustavus Lodin. 4to. Upsaliæ, 1785.

46. Joannis Jacobi Hartenkeil, M. D. Tractarus de Vesicæ Urinariæ Calculo. 4to. Bant-

. bergæ, 1785. c. Tab. Æn. iv.

LONDON MEDICAL JOURNAL,

FOR THE YEAR 1787,

PART THE SECOND.

I. An Account of the Means employed on board His Majesty's Sloop Weasel to preserve the Health of the Crew during a Voyage to Africa and the West Indies; with a Reply to some Remarks lately published by M. Chaussier, Surgeon at Dijon. Communicated in a Letter to Dr. Simmons by Mr. Leonard Gillespie, Surgeon in the Navy, and late Assistant Surgeon to His Majesty's Naval Hospital at St. Lucia.

England for the coast of Africa in February, 1778, put into Tenerisse, where a quantity of wine was sent on board for the use of the ship's company, and from thence proceeding on her voyage, touched at Senegal, Gambia, Sierra Leona, Cape-coast Castle, and at the different factories on the slave coast as far down as Widah and the Gulph of Benin.

As the rainy feafon commenced foon after her arrival on the coast, her crew was inevita-Vol. VIII. Part II. P bly bly exposed to those periodical rains so dangerous to European constitutions: to obviate their ill effects, a quantity of bark had been supplied to the surgeon previous to the ship's leaving England.

On rainy days, when the ship was at sca, each seaman, on coming upon deck for his sour hours watch, was ordered to strip to his trowsers, in order to preserve his frock, &c. dry, to put on when he should come off deck; he had then a dose of bark in wine administered to him, and the same was repeated when he was relieved; he then dipped himself in a tub of sea water*, rubbed himself dry, put on his dry clothes, and went below.

When the ship was at anchor, and it was found necessary on rainy days to expose the people, by sending them in boats, the same salutary discipline was observed.

Wine was ferved in lieu of spirits as long as the stock lasted. The greatest care was used to preserve the births clean and well ventilated; foraping,

* The precaution of wetting with sea water, after having

been exposed to the heavy rains in hot climates, is founded on the experience of the inhabitants of those countries, who dread very much the ill effects of rain water externally ap-

fcraping, washing with vinegar, and correcting the humidity between decks by means of fires, were practifed. A fick birth was formed under the forecastle*, and care was taken to keep the sick separated from those in health.

By fuch laudable care and attention on the part of the commander +, furgeon +, and other officers, this ship, with a complement of an hundred and twenty-five men, arrived in English Harbour, Antigua, in the month of October, without a fick man on board, having had very few on her sick list during the voyage, and having buried but one man since her departure from England. This, when compared with the state of health enjoyed by Captain Cook's crew during his second voyage, will

plied, and have learnt to obviate them by immersion in salt water. -- Dr. Lind, in his Essay on the Diseases of Europeans in hot Climates, recommends this practice. I have known spirits, externally applied, prevent the catching cold after being wet.

** The necessity of this regulation had been fatally experienced on board the Weasel, on the same coast, in the year 1769, when an epidemic sever made its appearance two or three days after an infected person had been received on board.

[†] Captain Lewis Robinson.

Mr. William Telford.

not appear by any means extraordinary: but let us fee the state of health on board a ship on the same station, in which the same salutary precautions were not observed, and we shall then be able to form a just estimate of the importance of means which may be used for preferving the health of seamen on sickly stations.

The Minerva, a frigate of thirty-two guns, failed from England for the coast of Africa a few days previous to the failing of the Weafel: unfortunately, her allowance of bark had not been fent on board, but was put on board the Weafel, in order to be conveyed to her when the ships should meet on the coast; but that did not happen, and of course there was no bark iffued to the Minerva's ship's company. What precautions were used, or neglected, on board the Minerva, I am unacquainted with; but it is certain that when the arrived at Sierra Leona, the third or fourth station for men of war in running down the coast, a great proportion of her ship's company was ill of fever; and the commander, who was himself affected with the reigning epidemic, the confequences of which proved fatal to him, convinced of the danger to those under his command, of perfifting to remain on the coast with a fickly ship's

ship's company, bore away for the West Indies; where, after burying a number of men, this frigate arrived in a condition so wretched, that she fell an easy prize to an enemy's frigate.

I cannot finish this letter without taking notice of fome remarks made by Monfieur Chauffier, Surgeon at Dijon, in a letter of his published in Mr. Lombard's third volume of Opuscules de Chirurgie, (page 346) printed at Strasbourg in 1786, and which vou were so polite as to favour me with a fight of, on a note inferted in my paper on the putrid ulcer, published in the London Medical Journal for 1785. The note alluded to is that* in which I fay I am convinced many men fall a facrifice to the use of large incisions in the Hotel Dieu at Paris. In making this affertion, I have only advanced a fact, unwillingly drawn from me, through a regard to the interests of humanity. Were I inclined to hurt the feelings of individuals, I might eafily support my affertion by publishing an account of fome cases, but that would be invidious: and it would also be unnecessary, as the Hotel Dieu is now under the care of a gentleman +.

^{*} Vol. VI. page 387.

[†] Monf. Default.

who, to great experience and science, joins the greatest humanity, and the most assiduous application in the discharge of the important charge entrusted to him. Had I advanced any thing untrue, a refutation of it would have come with more force from Paris than from Dijon or Strafbourg. But what feems to have given Messrs. Chaussier and Lombard most offence in the note above alluded to, is the imputation feemingly thrown out on the French furgeons in general, that they are too fond of large incisions, and are not in the practice of using the feton.—Although a foreigner in Paris may perhaps be justifiable in supposing that the practice which he fees in the hospitals, and the doctrine he hears inculcated in the schools, form the practice of the most enlightened surgeons of the nation; yet I confess that I was wrong in too hastily throwing out a reflection in the least injurious to a body so liberal and so enlightened as the French furgeons. The improvements which furgery has received from Paré, Mauriceau, La Motte, Le Dran, Petit, and a number of other excellent French furgeons, and the liberal establishments which the munificence of the French monarchs have induced them to keep open for students of all nations.

furgery, during the two last and present centuries, than the joint labours of the surgeons of one half of Europe besides. — The inscription on the noble amphitheatre in the College of Surgery at Paris, erected during the late reign, conveys a just eulogium on that humane, polite, and liberal nation —

- " Ad cædes hominum prisca amphitheatra patebant;
- " Ut longum discant vivere nostra patent."

Lothbury, March 4th, 1787.

II. An Account of the Success with which the Method of uniting Parts by the first Intention has been adopted in the radical Cure of the Hydrocele. Communicated in a Letter to Dr. Simmons, by Mr. Thomas Tomlinson, Surgeon to the General Hospital at Birmingham.

about fifty years of age, was admitted into the General Hospital on March the 4th, 1786, for the cure of a hydrocele, which had been of about twelve months continuance.

Some

Some time previous to the occurrence of this case, it had been suggested to me by Mr. Mynors (an eminent surgeon of this town), that the cure might be very much facilitated and sorwarded if an union of the parts could be brought on by the first intention or adhesive inflammation.

This idea carrying full conviction along with it, I did not hefitate a moment about making the experiment, especially after having confidered how much less pain and confinement would arise from this mode of treatment than from that which is now in most general use.

On the 6th of March I began the operation, by making an incision the whole length of the side of the scrotum affected, cautiously dissecting down to the tunica vaginalis, through which I made an opening at its upper or superior part, and after having introduced my singer, enlarged the aperture down to the most pendent part of the tuniour, by taking out an oval piece of the tunic, in order that the lips of the wound might not be prevented from coming into close contact. This being done, and the testicle examined and found perfectly sound, the edges of the integuments were brought together, and retained in their proper

fituation by means of futures. To make all fecure, pieces of adhefive plaster were applied, and over the whole a roller, of about two fingers in breadth, and three yards in length, was adjusted, being passed once round the body to prevent its supping off.

The patient was then put to bed, and a pillow filled with bran placed under the fcrotum, which I recommend as far preferable to a suf-

penfory bandage.

March 7. He did not complain of much pain arising from the operation; but being rather feverish, a saline draught, with viu. antimonial, was ordered to be taken every three or sour hours.

8th. The feverish symptoms were increased; the pain was inconsiderable; and there was very little discharge through the roller. The saline draughts were continued.

ogth. The fever was much the same as yesterday. The dressings being removed, I sound a general adhesion had taken place, with as little inflammation as could possibly be expected; no more indeed than seemed necessary to produce the desired effect.

the preceding day. The futures were removed,
Vol. VIII. Part II. Q and

and every thing prefented the most pleasing appearance; the discharge being inconsiderable.

11th. The patient was almost entirely free from fever and every uneasy sensation. Being rather costive, a clyster was administered.

12th. He continued to do well: and there was little or no discharge, except at the places from whence the sutures had been removed.

21st. The wound being quite healed, the patient was discharged cured.

It was my intention to have transmitted this case to you at an earlier period: but, reslecting, that objections might be started to the adoption of this mode of practice, from the authority of a single case, I resolved to wait, until I should have an opportunity of seeing more fully the success of this plan, and whether there was any probability of the disease returning.

I have now a particular fatisfaction in being able to fay, that fince the treatment of the above case, I have seen two others conducted in the same manner, with similar success; one of which fell under my own immediate care, and the other, under that of my worthy colleague, Mr. Vaux. In both cases, the sebrile symptoms were remarkably mild, and the cure of

one was completed in fifteen days, and of the other in fixteen.

Upon relating to Mr. Mynors the above particulars; and telling him my defign of publishing them, he authorised me to say, in addition thereto, that a case of hydrocele, of nine years standing, containing about a pint and a half of sluid, in a man of sixty-seven years of age, had, within these six months, fallen under his care; when, upon conducting the method of cure upon the above principles, it was completed in the space of three weeks; notwithstanding in that case, the tunica vaginalis was extremely thickened, from the long continuance of the disease.

Birmingham, March 6, 1786.

III. A Case of Mortification of the Leg, by Mr. Joseph Brandish, Surgeon at Alcester, in War-wickshire. Communicated in a Letter to Mr. Henry Cline, Surgeon of St. Thomas's Hospital, and Reader of Anatomy in London; and by him to Dr. Simmons.

THE treatment of mortification has undergone confiderable alteration, fince it has

Q 2 been

been observed that stimulants, which were formerly thought necessary, only ferve to exasperate the disease.

The practice of removing a mortified part, with an intention of preventing it from spreading, has been long since discontinued, being rarely attended with success. But when the mortification has ceased to extend, and a separation has begun to take place between the sound and diseased part, the operation has frequently succeeded. But whether amputation is in general necessary at this time, may be doubted, as Nature is equal to the work of performing a complete separation, and that in a few weeks, of which the following case is a remarkable instance.

Thomas Warner, aged fifteen years, of Grafton, a village near Alcester, in February, 1778, was pricked by a thorn, in the great toe of his left foot, which in four days became considerably inflamed. A fluctuation being discovered on the under part of the toe, an opening was made, and about a drachm of bloody matter discharged. On the fixth day he was very feverish, the foot was much inflamed, and the toe next the little one was livid, and had lost

all fensation. In three weeks the mortification had extended to within four inches of the knee, where it stopt; and, in ten days after, a complete separation was effected, the tibia and sibula coming away entire, leaving the integuments and muscles four inches long from the knee, forming a large cavity, where the bones had been situated. This happened within less than sive weeks from the time of the accident, during which period fomentations and poultices had been applied to the limb, and the bark given in large quantities.

The cavity in the stump gradually filled up, and the wound was perfectly healed in seven weeks, after the separation of the limb, forming as good a stump as when amputation has been performed in the usual place below the knee.

Alcester, March 15, 1787. IV. Supplement to the Account of Mr. Hunter's Method of performing the Operation for the Popliteal Aneurism, inserted in the Seventh Volume of this Work*. Communicated in a second Letter to Dr. Simmons, by Mr. Everard Home, Surgeon, F. R. S.

OME time fince I fent you an account of a new mode of performing the operation for the popliteal aneurism, by Mr. Hunter, at St. George's Hospital; the man having lately died of a fever, afforded an opportunity of ascertaining the consequences of the operation and the state of the parts after the recovery, which, being all taken together, render the case very complete and satisfactory; and the case being published in the Medical Journal, I send you the following account as a continuation of it.

The man was thirty-five years old at the time he underwent the operation, which was in December, 1785. In July, 1786, he was perfectly well, and returned to the driving of a hackney coach, which was his employment. From exposure to the weather, more particularly at night, he became subject to repeated

attacks of cold, and, in March, 1787, was seized with a fever of the remittent kind which carried him off. During all this time, the limb on which the operation had been performed, was not at all affected.

He died on the 1st of April, 1787, and leave was procured, with some trouble, and considerable expence, for Mr. Hunter to examine the limb seven days after death, at which time it was entirely free from putrefaction.

The cicatrix, on the anterior part of the thigh, was fearcely difcernible, but the parts under it felt hard. The ham had no appearance of tumour, and was, to the eye, exactly like that of the other limb; to the feel, however, there was a folid tumour filling up the hollow between the two condyles of the thigh bone.

The femoral artery and vein were taken out above the giving off the branch called profunda, and a little lower than the division into the arteriæ tibiales and interossea, a portion of these branches being preserved. The arteries and veins, that were pervious, being injected, the whole was carefully dissected; and the following is an account of the appearances.

The femoral artery was impervious from the giving off the profunda, as low as the part which

was included in the ligature, and at this part there was an offication, for about an inch and an half along the course of the artery, of an oval form, the rim of which was solid, becoming thinner towards the center, and not bony; but only ligamentous: below this part the semoral artery was pervious down to the aneurismal sac, and contained blood, but did not communicate with the sac itself, having become impervious just at the entrance.

What remained of the aneurifmal fac was fomewhat larger than a hen's egg, but more oblong, and a little flattened, extending along the fide of the artery below for fome way; the blood preffing with greater force in that direction, and distending that part, so as, in some measure, to give the appearance of a separate bag. The fac was perfectly circumferibed, not having the smallest remains of the lower orifice from the popliteal artery; whether this arose from the artery being pressed upon by the inferior portion of the fac, as appears to be the cafe in common, or was in consequence of the sac contracting after the operation, I will not presend to determine. It contained a folid congulum of blood, which adhered to its internal furface. The coagulum, having a fection made of it, appeared

appeared to be composed of concentrated lamellæ uniform in colour and confistence.

The popliteal artery, a little way below the aneurismal sac, was joined by a small branch very much contorted, which must have arisen either from the profunda or the trunk of the semoral artery. About two inches below the sac the popliteal gave off or divided into the tibials.

The profunda was of the usual fize, but a good deal offified for some length after leaving the femoral artery: the two tibials, where they go off from the popliteal, were in the same state.

The trunk of the femoral vein, where it passed along the side of the tumour, must have been obliterated; for at this part it appeared to send off three equal-sized branches, passing over different parts of the aneurismal sac: these must have been dilated branches, none of them having the course which the trunk of the vein should have pursued.

These appearances throw some light on the changes which took place in the limb after the operation. A ligature being made upon the semoral artery, impeded the passage of the blood into the sac to much, as to allow it, in some measure, to collapse, and its contents to coagulate, which rendered the opening of the

Vol. VIII. PART II. R arte

artery into the fac impervious; fo that not only a stop was put to the increase of the tumour, but it must of necessity have become gradually more solid, and smaller, in consequence of absorption, till reduced to the size met with in the dead body.

The material confequences taken notice of, coincide with the idea Mr. Hunter had formed prior to the operation.

The conclusion to be drawn from the above account appears to me a very important one, viz. That the simply taking off the force of the circulation from the aneurismal artery is sufficient to effect a cure of the disease, or at least to put a stop to its progress, and leave the parts in a state from which the actions of the animal economy are capable of restoring them to a natural one.

In confirmation of this account, that the cure of an aneurism depends on taking off the force of the circulation, I shall mention a case that recovered without any affistance from art, and which I consider to have got well upon the same principle. This case was more particularly under the care of Mr. Ford, Surgeon, in Golden Square, who will, I hope, lay a particular account of it before the public; I

mean to notice it no farther than by endeavouring to account for the recovery, which may be explained by Mr. Hunter's observations on mortification.

The aneurism was in the femoral artery, and the swelling appeared upon the anterior part of the thigh a little above the middle, extending upwards, as it increased in fize, nearly to the brim of the pelvis. Every attempt towards a permanent compression of the artery above the tumour, just as it passes over the brim of the pelvis, proved ineffectual: the tumour enlarged to a very confiderable fize; a great degree of inflammation and fwelling took place in the fac and common integuments; and mortification appeared to be taking place in the skin which lay over it: while in this state, the pulsation, before very evident in every part of the tumour, was no longer to be felt, nor even in the artery immediately above it; so that the steps preceding mortification had certainly taken place, the blood in the artery above having coagulated *; and this circum-

^{*} In those patients who die in consequence of mortification of any part of the body, the artery leading to that part is found always completely stopped up for several inches in length

circumstance was sufficient to prevent the absolute mortification coming on; for the artery above becoming impervious, put a stop to the dilatation of the sac and all its consequences.

From the time the pulfation stopped, the swelling and inflammation subsided, although exceedingly slowly, and the tumour diminished, becoming more firm and solid, and at the time of writing this paper is very much reduced in size, and to the seel resembles that sound in the ham of the patient who is the subject of this paper.

Having in my former paper taken notice of an unfuccessful case in which this mode of performing the operation for the aneurism was in some measure adopted at St. Thomas's hospital, I feel myself more particularly called upon at present to do away any censure that may have fallen upon this operation from an unsuccessful case at St. Bartholomew's hospital, which has been the subject of medical conversation. I shall mention the operation, at which I was present, and give the result as briefly as I am able.

by a firm coagulum: this must take place prior to the mortification, and seems intended, for the wisest purposes, to prevent hæmorrhage. Taken from Mr. Hunter's Lectures.

The

The aneurism was in the ham, and the operation was performed by Mr. Pott in the following manner:

An incision was made above the tumour, through the integuments, in the direction of the thigh between the two hamstrings, for about five inches in length; he then diffected down to the veffels at the upper end of the incifion, which being there deep feated, it proved both tedious and difficult. Having come down to the vessels, a double ligature was passed, and the two portions tied feparately at nearly half an inch distance. The depth of the incifion made it difficult for any but the operator and those immediately affisting him to see what was included in the ligature, and no doubt was made at the time of its being any thing but the artery. The wound was dreffed up in the common way.

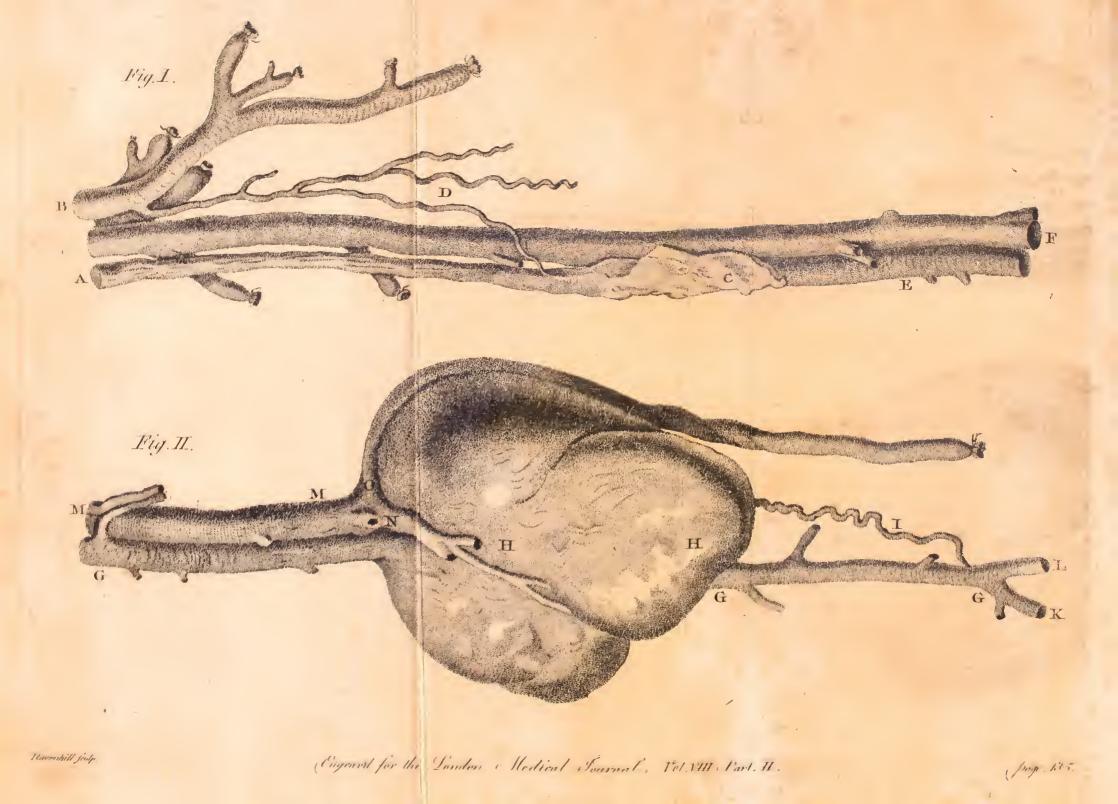
The fecond day after the operation a pulfation was felt in the tumour, which afterwards enlarged fo much, that Mr. Pott amputated the limb.

On diffection, the aneurism did not appear to be in the artery which was included in the ligature, but was supposed to be in an anastomosing branch.

I shall not go farther into the operation than as it applies to Mr. Hunter's mode of performing it, which leads me to the following remarks: - That from analogy the pulfation should not have been felt in the tumour, had it been either in the trunk of the artery, or in an anastomosing branch, if the popliteal artery above was rendered impervious; and if the branch diseased went off from the semoral artery above the ligature, the pulsation should have continued after the operation, and should have been rendered more violent by it, which does not appear to have been the case; and farther, that the taking up the artery in the ham was taking it up under every disadvantage respecting the future fuccess of the operation, either from the artery itself being diseased, or the tumour being so contiguous to the violence done in the operation, that the whole fac most probably would be affected by the confequent inflammation, which feemed in some measure to have been the case, as I understand two abscesses were formed close to the sides of the sac.

Green Street, Leicester Fields, May 23, 1787.





[135]

EXPLANATION OF THE PLATE.

The plate shews the semoral artery and vein injected and diffected.

FIGURE I.

The femoral artery, after it has passed through Poupart's ligament, divided below the giving off the profunda branch.

A, The trunk of the femoral artery imper-

B, The profunda branch.

C, The portion included by the ligature, in the operation, in an offified state.

D, An anastomosing branch from the profunda communicating with the semoral artery.

E, The femoral artery below the ligature in a natural state.

FF, The femoral vein.

FIGURE II.

GGG, The continuation of the femoral artery.

HH, The remains of the tumour, the full fize of the aneurismal sac at the time of the patient's death.

I, An

I, An anastomosing branch either from the profunda or semoral artery above.

K and L, The division of the popliteal into the two tibial arteries.

MM, The continuation of the femoral vein. N and O, Two enlarged branches going over the tumour in different directions.

V. An Account of the good Effects of Mercury in a Difease apparently of the Lymphatic System, attended with nervous Symptoms. Communicated in a Letter to Dr. Simmons, by Mr. John Covey, Apothecary at Basingstoke, in Hampshire.

To Dr. SIMMONS.

SIR,

HE following case, which sell under my care some sew years ago, having been attended with very singular as well as extraordinary circumstances, I have a desire, through the channel of the Medical Journal, to communicate it to the public. Dr. Adair saw the patient on the 18th of March; and although he did not afterwards see her, yet he was regularly informed

informed by me of the progress of the illness, and prescribed for the patient by letter until her recovery. I have informed him of my intention, and it is by his authority I have made use of his name. If you, Sir, shall judge the case sufficiently interesting for publication, you will oblige me by inserting it.

I take this opportunity of requesting you to rectify a mistake in the printing of my last paper.—The words, "fimilar to those," introduced in the third and fourth lines, page 17, of that paper, were not a part of my observations; this, together with the subsequent sentences, being intended only as stating cases related by Dr. Monro, Dr. Rush, and Mr. Quier, which had escaped my recollection when I penned my first observations on inoculation, and not as stating facts which had happened under my own inspection *.

I am, Sir,

Your most obedient servant,

JOHN COVEY.

Basingstoke,
April 5, 1787.

D. A., a strong, healthy girl, aged eight years, and born of healthy parents, was at-

* See page 17 of the prefent volume.

Vol. VIII. Part II, S tacked

tacked with the measles about Christmas. The disease went off without medical assistance, and her mother afterwards gave her seven or eight doses of strong senna tea, which operated very briskly. About fix weeks after this course of physic, she was attacked with a violent colic, which, after two or three hours continuance, went off. From this time till the Christmas following she had a return of the colic once in five or fix weeks; and from that time till the beginning of March following the returns were more frequent, generally attacking her once in a week or ten days. About the beginning of that month her mother perceived fome alteration in her speech, and that she at times complained of pains and stiffness in her knees and elbows. On the 9th I was fent for, and found her with a confiderable degree of fever, and a rash, refembling the sting of nettles, over the greatest part of her body. This kind of rash, I was informed, had appeared upon her feveral times in the course of the preceding year; but as it was attended with a flight degree of illness only, and foon disappeared, but little notice had been taken of it. Both the rash and the violence of the fever were removed in the courfe

course of two or three days, when she again began to complain of pain in her joints, faultered very much in her speech, and had frequently such gestures as are usual in the Chorea fancti Viti; the little fever she now had appearing in the evening only. On examining the pained parts, fmall moveable knots were obferved, which, on being preffed, were fomewhat painful. She generally awaked two or three times each night, apparently in violent pain, crying very much; and on being asked where she was in pain, she mentioned sometimes one joint and fometimes another. These complaints fo greatly increased, that, at the end of four weeks, the loft her speech, all parts of her frame were almost constantly in motion, and the knots appeared on nearly every joint, and likewise on some other parts of her body, particularly on the whole length of the spine, on her shoulders, round the scapulæ, on the sternum, the elbows, wrifts, knuckles, hips, knees, and ancles. Those on the spine, round the scapulæ, and on the knees and breast, were fome of them as large as chefnuts; the others from the fize of vetches to that or hortebears. Those upon her breast, and round the scapulæ, appeared to be somewhat inflamed; the others

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were of the natural colour of the skin. The rash frequently appeared on different parts, but soon disappeared again, leaving a purple essorted efforces on the parts for a short time after it was gone. She had at this time quite lost the use of her legs and arms, and awaked many times in the night, apparently in considerable agony. If her arms or legs were moved from the posture they at any time lay in, she expressed great sign of pain, and they were bent with much difficulty.

During the former part of this time fome medicines, chiefly those called nervous, were tried, but without effect. On the 18th of March Dr. Makittrick Adair, now of Bath, faw her; and as there was fome reason to suspect that worms, or fome other irritating cause in the first passages, might create or support the nervous fymptoms, he ordered her to take four grains of calomel two nights fuccessively, and on the fecond morning twelve grains of jalap in powder. No relief, however, was obtained from these medicines. The warm bath (affisted by fudorifics) was afterwards tried every day till the 8th of April. Some other remedies of the alterative and antispasmodic kinds were likewife administered; but as these were equally inefficacious, inefficacious, it feems unnecessary to describe

them particularly.

On the 9th of April the Doctor directed a fmall quantity of mercurial ointment to be rubbed into her shins at bedtime, and to be repeated each night till it should produce a tenderness in the gums, and then it was to be purged off; the warm bath to be continued. From this time the diforder appeared to be at a stand, and on the 16th she spoke two or three words, got on her legs, and flood up a fhort time with very little affistance. The knots now appeared to be rather decreasing in their fize, and the nervous fymptoms were less violent. This mercurial course was persisted in about a month, during which time the gums were only flightly affected; the knots and nervous affections gradually decreased, and she soon after this time regained perfect health. During the whole of this illness she had a good appetite. was regular in her body, and although fhe loft her speech, yet her senses appeared to be. unimpaired.

VI. A Letter to Dr. Simmons, F. R. S. from Mr. James Lucas, one of the Surgeons of the General Infirmary at Leeds.

To Dr. SIMMONS.

SIR,

I AM forry to find that my observations upon amputation appear to have been, in some degree, liable to misconstruction*. An early decision upon the necessity of amputation, in cases of accident, is often necessary, because it would be injudicious to operate after the limb becomes inflamed; and the death of the patient has been known to happen before the fymptomatic fever had fufficiently abated: yet I do not find that "precipitate amputation" is, in general, preferred to the employment of fuch means as are likely to preferve the limb, or that "an operation is often necessary at the " end of a month or fix weeks." My observation, on the increase of blood vessels, is founded on experience. The "limitations" stated are not strictly requisite: the prognostic is not fo difficult as feems to have been con-

^{*} Sec Vol. VII. p. 377.

ceived; nor are "care and attention to take "up the veffels" always sufficient to restrain the hæmorrhage *.

As it was not the *tibia*, but the os femoris, that was found protruded through the integuments, "an unguarded feparation of them from the bone" is not eafy to be comprehended ...

My paper was intended not merely "to re"vive the flap operation," but to point out
an occasional preference in the different modes
of amputation, and to enforce an exact attention to every part of the treatment, as being
the only means of insuring success.

By having the apparatus completely provided, and the parts for incifion previously marked out, the operator is at liberty to attend more fully to the executive part; and though I have not advanced that such "minutiæ" are necessary, yet I beg leave to repeat, that they have been found of material advantage ‡.

Although I have enlarged on unfavourable cases only, yet I can, with equal truth, add,

^{*} Vol. VII. p. 383.

[†] Ibid. p. 387.

¹ Ibid. p. 229, &c.

that no instance of failure has occurred in those patients on whom amputations have been performed early; either in respect to their recovery, or the ready healing of their wounds: I am, therefore, inclined to think, that the want of success, so alluded to, should be rather attributed to some other cause, than "to the healthy state of the patient "."

The observations, which seem to have been somewhat hastily criticised, were the result of twenty years experience, as an hospital surgeon, and had been frequently and carefully reconsidered: they were drawn up without a wish to support any theory, but with a desire to contribute my endeavours towards the establishment of an improvement in surgery, which had repeatedly afforded me the greatest satisfaction.

I have the honour to remain,

SIR,

You most obedient Servant,

JAMES LUCAS.

Leeds,
April 21st, 1787.

* Vol. VII. p. 382, 390.

VII. Some Remarks on the supposed Influence of the Moon on Fevers. Communicated in a Letter to Dr. Simmons, by James Lind, M.D., F. R. S. Physician at Windsor, and Fellow of the Royal College of Physicians at Edinburgh.

I SEE by the letter of Dr. Jackson, Physician at Stockton, published in the first part of the London Medical Journal for the present year, that there are others, besides the inhabitants of the lower part of Bengal, Dr. Balfour, &c. and myself, who have attributed the frequent attacks and returns of remittent and intermittent severs, which happen in tropical countries about the times of the new and full moon, to the immediate influence of the moon.

I confess I was once of this opinion, as you may see by my Inaugural Differtation on the Marsh Fever, which raged at Bengal in 1762*; but of this immediate influence I have, upon more mature consideration, long since doubted †, and think that it ought rather to be im-

^{*} Re-published in the third volume of the Edinburgh Thefaurus Medicus.

[†] Vide page 45 of the English translation of the above Differtation, printed at Edinburgh.

Vol. VIII. Part II. T puted

puted to the noxious vapours arising from the fwamps, produced by the high tides which happen at the time of the full and change of the moon, and, overflowing a great part of the country, leave it in a marshy state at low water, thereby occasioning the frequent attacks and relapfes that occur at those periods. This I am induced to believe to be the fole cause: first, because this lunar influence entirely ceases when the patient is removed but a few miles from the swamps that are left uncovered by the tide at low water; fecondly, because intermittent fevers are not observed to follow lunar periods at many places within the tropics, even at Canton*, (where there is a large river and great tides) by reason of the industrious Chinese keeping the river within its bounds. Intermittents there only follow the state of the weather, as it renders the country and rice grounds more or less marshy, or as the winds blow over dry country, or rice grounds that are covered with mud and flime; therefore, what is called a lunar influence will, I imagine, be no

^{*} Latitude of Canton in China, - 23 6 38 N.

Latitude of Calcutta in Bengal, - 22 34 45

where

where found, but where remitting and intermitting fevers are occasioned from muddy shores left by the ebbing of the tide.

Windsor, April 23d, 1787.

VIII. Case of an Extra-uterine Fætus. Communicated in a Letter to Dr. Simmons, by Mr. Edward Jacob, junior, Member of the Corporation of Surgeons of London, and Surgeon at Faversham, in Kent.

ARY Jacob, a poor woman, aged twenty-three years, of a middle stature, and of a thin but healthy habit, became pregnant in the beginning of the year 1785. In a former pregnancy she had miscarried about the fixth month, in consequence of a fright, and the fœtus had been suddenly brought into the world by the natural pains; but the placenta having adhered, and a flooding followed, I had been called to her assistance, and soon extracted it. From that time she had recovered, and remained in perfect health. In this second pregnancy no particular sensations led her to suspect

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that

that she had conceived, till an obstruction of the menses took place; after which she suffered more severely than common that train of symptoms so often attendant on early pregnancy, such as constant colic, sickness, costiveness, dysury, and want of natural rest; but without seeking any affistance from medicine.

In the beginning of June she first selt the motion of the child. This motion she described as a kind of plunging within her, attended with severe pain, and which continued almost without cessation, and was so violent, that at the end of a fortnight convulsive sits were the consequence, and I was again applied to. Pain appearing to have been the immediate cause of these convulsions, I placed my chief reliance on opiates; but although strong ones were administered, they were too weak to remove the pain; yet, though her situation was such, no other marks of miscarriage ever presented themselves.

As the patient was feveral miles distant from me, I neither saw nor heard of her from June 23d till August 15th, when a message being sent to me, describing her to have continued nearly in the same distressful situation as before,

an opiate and clyster were directed to be administered. From that time I received no farther account of her till October 17th, when I was called to attend her in her supposed labour, her friends judging, from her melancholy situation, that, unless she was then delivered, life could not long be supported. On my entering her chamber, I was struck with her melancholy appearance, as I found her with a deadly countenance, and emaciated to the greatest degree at every part, except the abdomen, which was as much on the stretch as it commonly is in the last week of pregnancy.

The account she then gave me of herself was, that in the month of August, after having had recourse to the opiate and clyster I had recommended to her, she had dreamt that she was falling from some precipice, and that having waked suddenly in a great fright, she had found an alteration in the situation of the child within her; for it now seemed to her as though it lay quite round the inside of the abdomen, and from that instant it never moved but as a heavy, dead weight; that afterwards she could never lie down in bed, was never free from pain, and could in no respect

attend to her family affairs; and yet the abdomen did not in the least decrease in fize.

On inquiry, I found that her pain was conftant, and yet not like forcing labour pain, and that she had no other marks of labour; for on examining the os tincæ, it felt rigid and close shut; the neck of the uterus scemed to be of its natural length, and there was no perceptible increase of bulk in the body of it: yet, with all these circumstances, a child was plainly to be felt through the parietes of the abdomen.

I now again had recourse to an opiate, with the hope of its lessening the severity of her pain, and the next day I had the pleasure to learn that ease and sleep had been obtained by it; I therefore ordered it to be repeated every night, and at any time when occasion might require.

From this time her bulk began gradually to decrease, though a circumscribed hardness was always to be felt around the umbilicus. I occasionally after this visited her, and desired her to be particular in her remarks, that I might be informed of every change that might take place in her.

No discharge of any kind had ever appeared, par vaginam, from the first obstruction of the menses till February, 1786, when they appeared again, and continued to return regularly till August, when they slowed in greater quantity than usual, but did not return afterwards. An inflammation, which had been for some time more or less round the umbilicus, now terminated in suppuration, and a sætid matter began to slow therefrom, gradually increasing in quantity. Soon after this change I saw her, and she appeared to have no other complaints than what such an inconvenience must occasion, her pain not being very distressing.

After this I heard no more of this poor woman till January, 1787, when Mr. Curteis, Surgeon of this place, (to whom I had from the first mentioned the nature of her case, and her name) informed me, that the overseers of her parish had desired him to attend her. On his first visit to her he had discovered some bones of a sætus presenting through the opening at the umbilicus, whence the sætid matter had so long been discharged; and he was afterwards so obliging as to give me an opportunity of attending her with him.

On our examining her together, the spine and back part of the ribs of the fœtus were found prefenting at the opening, which at this time was nearly of the breadth of half a crown, and through which two of the spinal vertebræ were eafily feparated. The opening daily became larger, and more of the fœtus discovered itself. The patient was kept as clean as her fituation would permit; but notwithstanding every care, the putrid stench was so great, that her room was almost intolerable. this deplorable fituation opiates were freely exhibited, and the strictest attention was paid to the non-naturals. At our third vifit appearances were more favourable, the nates of the child prefenting through the opening fo far as to enable me to wrap a cloth round them, and to bring them forward. The parts, from fo long a putrefaction, being loofened, with little pain yielded to my endeavours, and the whole of the fœtus feemed to be brought away at once, by a fleady perfeverance, without any dilatation or great force; but upon examining the opening, one of the parietal bones was found feparated, which, with part of one of the legs, was brought away by the common forceps; but the former bone, from its faw-formed edge being

being detached from the head, gave more of pain than all the rest of the child, and yet not a single blood vessel was broken in the attempt. After every extraneous matter was removed, we applied lint only to the part affected, and, by guarding against any impediment that might obstruct nature in her essorts, we had the satisfaction to see our patient persectly recovered from every complaint, the parts having contracted and healed in about a month after the child was extracted.

The child, after maceration in water, appeared to be male, was perfect in shape, though highly putrid, and measured about fourteen inches in length. The funis entered into the umbilicus at its natural place; but not more than three or four inches of it were left.

Faversham, April 27th, 1787. IX. Case of a Ganglion of the Tendons, opened, and successfully treated. By John Evans, M. D. of Liverpool.

A ARY Mather, a robust young woman, IVA about twenty-eight years of age, fervant in a gentleman's family in this town, applied to me March 5th, 1787, concerning a large ganglion of the tendons, which occupied a confiderable part of the back of the left hand, and had been growing gradually larger for the space of four years; but of late had become very painful, being increased to an uncommon fize. Upon examination it appeared to be feated on one of the tendons of the extensor communis digitorum, and, passing under the annular ligament of the wrift, extended about three inches above it. Upon pressure being made below the ligament, the contents of the tumour were readily forced underneath it upwards, and by the fame means, as eafily returned: therefore, before I ventured to make an incision, I got the superior end of the cyst firmly pressed by the hand of an assistant, with a view of forcing whatever it contained into asfinall a space as possible, and consequently rendering the operation more effectual. Being thus prepared,

prepared, I began the incision below the ligament, and continuing it to the inferior edge of the cyft, the whole of that part of it fituated on the back of the hand was laid open; when, to my great aftonishment, instead of a glairy fluid which is common to these kind of tumours, I found a number of fubstances, in all about two hundred, of different fizes, refembling, in every respect, so many unripe nut kernels. Upon opening fome of them, I found that they contained a pellucid fubstance, so solid, that it did not eafily yield to preffure between the finger and thumb. The major part of them I have preferved in spirits, in which they retain their whiteness and form; but some of them that were wrapt in paper, and carried by the patient in her pocket to show her friends, were, in the space of twenty-four hours, shrivelled to half their original fize, and became as hard and transparent as horn.

Instead of dividing the ligament, or cutting away part of the cyst, according to the practice of some eminent men*, I destroyed as much of the internal part of it as seemed necessary

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^{*} See Gooch's Cases and Remarks in Surgery, Sharpe's Operations, and Warner's Cases in Surgery.

with lunar caustic, and, by the use of mild digestives and a proper application of bandage, the wound was persectly healed in three weeks, without any disagreeable circumstance intervening.

The above case seems to confirm the opinion of Mr. Gooch, that the contents of the tumours called steatomatous and atheromatous are nothing more than lymph under different degrees of inspissation.

X. A Case of Hydrophobia. By Mr. David Dundas, Surgeon at Richmond, in Surry. Communicated in a Letter to John Grieve, M. D. Member of the Royal College of Physicians of London, and by him to Dr. Simmons.

ENRY Rider, a flout, healthy man, aged about forty years, was bit in the wrist, in the month of August, 1785, by a little fox dog belonging to himself, which he immediately shot, it having bit a pig, and shewn an inclination to bite all who came near it. He did not apply to me till some hours after the bite; and as so much time had elapsed, and the wound was inconsiderable, and there

was no certain proof of the madness of the dog, I dressed it only with some common cerate. I advised him, however, to take the Ormskirk powder, which he did the next morning; and he also applied the powder, mixed with vinegar, to the wound, according to the printed directions. As he expressed an inclination to be dipped in the sea, I encouraged him in it, and he proceeded to Gravesend, where he underwent the usual operation of immersion.

From that time he remained perfectly well, and continued to follow his occupation of keeping an alehouse in this neighbourhood till about the end of December, 1786, at which time, finding his business unsuccessful, and being apprehensive of an arrest, he quitted his situation, and went to London in order to conecal himself from his creditors till his affairs could be settled.

On Friday, the 23d of February, 1787, he dined with the fervants of a gentleman in London, about feven o'clock in the evening: he ate some boiled tripe heartily; but upon attempting to drink some porter, he was surprised he could not swallow it, and imagined a piece of the tripe had stuck in his throat; he tried again to drink, and was all oft strangled in the at-

tempt; but was able to chew some bread, and to swallow it easily, though he still experienced the same dissiculty as before with any liquid. He went home very uneasy; had some slight rigours, and selt such an anxiety and oppression, that he could not go to bed. In the morning he ate some buttered toast, but could not swallow any tea. He now applied to an apothecary in London, who bled him, and gave him some purging pills; but as he hourly became worse, he set out for Richmond, and called on me about nine o'clock on Saturday evening, February the 24th.

He had been apprehensive that the difficulty of drinking might be the consequence of the bite, as I learned from a conversation he had had with his wife, but he still flattered himself it might proceed from some of the tripe sticking in his throat, and he told me he had come to me in hopes I could push it down; but upon my asking him if he had ever felt any uneasiness in the wrist which was bit, he told me he perceived what my opinion was, and was ready to submit to his fate.

He appeared very much agitated and oppressed; complaining most of a weight at his stomach, and of an anxiety which he could not describe: describe: his pulse was very quick and small; his eyes looked wild: he complained of a little head-ach, and had a great dryness in his mouth, but dreaded the fight of drink. Upon shewing him a glass of water, he appeared much agitated, but said he was determined to drink it; with difficulty he got it to his mouth, but not a drop of it was taken in, and his whole body was violently convulsed. Some of the water had been spilt upon the table, and his hand by chance touching it, produced nearly the same effects.

He told me he had observed an itching in his wrist for some days, but it did not appear at all discoloured or swelled.

As he had already had the hydrophobia up-wards of twenty-feven hours, I did not suppose any thing could relieve him. A large blister, however, was applied to his back; an ounce of mercurial ointment was directed to be rubbed into his arms and legs every two hours; and a clyster, containing an ounce of the tinctura feetida, and fifty drops of laudanum, was given every four hours. Dr. Prendergast, who saw him along with me, wished him to take the turpeth mineral; but it was impossible for him now to swallow it.

On Sunday morning, the 25th, he was very fensible, but had not been in bed all night: he retired to a corner of the room; looked very wild; his pulse was very quick; and he frequently made a noise very like the barking of a dog. He told the people who were with him not to be afraid, as he should not hurt them; but he did not like to be spoke to; and when any stranger came into the room, it agitated him much.

About the middle of the day he attempted to bite and strike the people who were attending him, and became so much convulsed, that it was necessary to put a strait waistcoat on him. After a violent struggle, he became much more serene. The mercurial friction was continued without intermission, but without any sensible effect; and from this period his situation was truly deplorable. He imagined he was to be smothered betwixt two seatherbeds, and every time I came to see him he apprehended it was to give the satal order.

No perfuation could remove this unhappy idea from his mind; and he evidently suppressed his complaints, in order to conceal, as he supposed, from me the necessity of my proceeding to the last extremity. This distress of

mind feemed much greater than his bodily pain; and had it not been for the former, I should have supposed him to suffer much less than persons do in many other diseases.

From the evening till betwixt three and four o'clock on Monday morning he continued perfectly fensible, gave orders about his funeral, and having taken leave of his wife, was seized with a convulsion, which, in a few minutes, put a period to his sufferings.

I examined the body the next day; but upon opening the head, no appearance of disease could there be discovered. The vessels of the brain did not seem more turgid with blood than usual; neither was any inflammation or swelling discoverable about the pharynx or neighbouring parts. Both the oesophagus and trachea indeed seemed to be covered with a thicker mucus than usual; but his not having swallowed any liquid during sifty-six hours, may easily account for this appearance. The left lobe of the lungs, and the edge of the great lobe of the liver, appeared to be inflamed; all the other viscera were in their natural state.

It appears from the relation of this case, as well as from other recent ones, that the Ormskirk powder does not possess any prophylactic Vol. VIII. PART II.

power with regard to this disease; neither is much stress to be laid on the practice of dipping the patient in the sea, in the manner it is commonly used, to prevent this complaint: any effects it may produce seeming to be owing more to the impression of sear on the nervous system, than to the common tonic power of cold bathing.

There feems reason to suspect that a dog, without having the hydrophobia upon him, is able to communicate that disease by a bite, as this man's dog had not exhibited any symptoms of hydrophobia previous to its biting him; but it was killed too soon to ascertain this point with respect to this dog. I am informed, however, from the best authority, that the dog which bit Admiral Rowley's son * two years ago, at a plate of meat, and lapped a bason of milk and water, after it had bit him; and shewed no inclination to bite Sir James Cockburne's coachman, who tied a string round its neck, and led it to the coachhouse, where it lived four days.

As this poor man remained well fo long, and had never experienced any uneafiness in the

^{*} See his case described in the seventh volume of this Journal, page 90.

part where he was bit, is there not reason to suspect that an increased irritability of the nervous system, from the state his mind had been in for some time, might act as an occasional cause of the disease? If so, might not good effects have been expected from a continued course of cold bathing, assisted by some of the more powerful tonic medicines, especially as mercurial courses have failed in preventing this disorder?

As cold bathing appears to have been of fervice in fome cases of locked jaw, might not it be adviseable to give it a fair trial in hydrophobia *?

Celfus, with his usual brevity, recommends (as well as other authors) cold bathing; and from his faying "Unicum tamen remedium "eft," one might suppose it had been found successful in some cases; but his idea seems rather to have been to force the patient to swallow drink, as he advises his being pushed under water in case he can swim, and concludes with saying, "Sic enim simul et sitis et aquæ metus tollitur +."

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^{*} This was done in one of the cases related by Dr. Vaughan, but without any essential advantage. — See his Cases and Observations on the Hydrophobia, page 35. EDITOR.

[†] Celsus de Medicina, Lib. v. cap. 27.

No new light is thrown upon the rabies canina by this case; the only conclusion we can draw from it is, that we are as yet equally ignorant of the nature, the prevention, and the cure of this dreadful disease.

Richmond,
April 8, 1787.

XI. An Account of two Cases of violent Constipation of the Bowels; the first successfully treated by the internal and external Application of cold Water; and the second terminating by a Discharge of Matter from the Vagina. Communicated in a Letter to Dr. Simmons, F. R. S. by Mr. Charles Kite, Member of the Corporation of Surgeons of London, and Surgeon at Gravesend, in Kent.

TAKE the liberty, Sir, of submitting the two following cases to your consideration. The termination of the first is decisively and unequivocally in favour of a plan, which at present does not seem sufficiently regarded; and as it tends in a remarkable manner to confirm the propriety of a practice which is but impersectly understood, I hope it may

may prove one means of introducing it more generally into practice.

The cure of the second case is entirely unconnected with the first; yet, as they resemble each other in their nature, as it originated from a cause, which, so far as I recollect, is not mentioned by any writer, and as the causes of the generality of these cases are involved in much obscurity, I presume an account of it may prove not altogether unacceptable to you.

CASE I.

Daniel Donaldson, of a strong, robust constitution, forty-eight years old, and formerly a sailor, till October, 1785, enjoyed a good state of health; but at that time, while he restided in a workhouse in some part of Lincolnshire, was seized with an irregular intermittent. It continued about three months, and then, by taking a very sew medicines, (among which he does not believe there was any bark) it lest him. From this period he dated the origin of his complaint; for soon after he was subject to pains in various parts of the abdomen, but more especially in the lest hypochondrium and round the navel. When the pains were violent, the part affected became swelled, and the bowels were costive; but on stools being procured, he immediately grew easy, and the swelling disappeared. He soon perceived that when a sufficiently large quantity of sæccs was accumulated, the same symptoms returned, and he was obliged to have recourse to salts, or some other purging medicine, in order to obtain stools. In this manner was he generally attacked once every four or sive days; but as the remedies he commonly made use of had always given a temporary relief, I was not defired to see him till the 23d of March, 1786, when he was taken much worse, in consequence of the medicine having sailed in producing its usual effect.

The pain, with some degree of tension, was general all over the abdomen, but immediately below the navel it was more severe. At this part there was a considerable swelling, which, at first, seemed a contraction of the abdominal muscles, but afterwards it appeared more likely to be a collection of air or sæces confined in some part of the bowels. He had passed no stools for about a week, and his urine had been made frequently, and in small quantity; but there was no appearance of inslammation or sever, for no rigours had attended: the pulse

was scarcely altered from a healthy state, and as yet he was not attacked either with sickness or vomiting.

Previous to my feeing him he had taken three ounces of falts, which had produced no effect; a strong dose of jalap and cream of tartar was then given, with no better fuccefs. Extract. cathart. and calomel having given relief in a former fit, were now exhibited in large quantities, but with no advantage; at the fame time clysters were had recourse to, which fometimes were retained, but frequently voided in the same state as when injected. It fecms unnecessary to specify to you every particular remedy which was made use of. It will fuffice, perhaps, to mention, that, after bleeding, the purging falts, infusion of senna, jalap, extract, cathart, calomel, caftor oil, &c. were by turns employed; and as they occasioned neither fickness nor increase of pain, they were all given in much larger doses than I had ever ventured on myself, or than I had known given by others. The clysters were emollient, oily, and purgative; fometimes they were formed with a folution of turpentine, and frequently with a strong infusion of tobacco: the

usual quantity of each clyster was a pint; this was ordered to be forcibly injected through a pipe with a bore larger than usual.

The state of the inferior part of the rectum had previously been ascertained, but I now thought it adviseable to examine whether any constriction existed in the lower part of the colon. With this intention, a candle, nearly a foot in length, was carefully introduced, but not the least obstruction was perceived: it was, however, suffered to remain till the tallow melted; and conceiving some benefit might arise from a soft substance lying some time in the part, this remedy was again repeated.

The warm bath was now used; but it was evident he was in much greater pain while in it than before. As soon as he came out, a clyster of the sumes of tobacco was blown up the rectum: he was again put into the bath, and while in it another smoke clyster was in jected, and one more was repeated when he came from it.

The same day a small quantity of cold water was sprinkled on his legs and arms, while he lay on a blanket in a warm room; but the next he was supported on the cold stones of a wash-

house

house perfectly naked, and this during a severe frost, while a pailful of cold water was, at different times, dashed over his legs and thighs and poured down his arms. This, instead of increasing the pain, as the warm bath had done, made him much easier: the relief, how ever, was but of short continuance; but it was the only effect it produced.

The day following, after a tobacco-smoke clyster had been given, he was sick, and vomited much. What he brought up tasted powerfully of the tobacco, and bore an exact resemblance, both in appearance and smell, to the liquid saces which were forced from him by the violent effort of straining. Trivial as this evacuation was, yet, when the sickness had subsided, he thought himself easier for it; I therefore encouraged the vomiting, by giving half a scruple of vitriol. alb. every half hour till it operated, which it soon did, once or twice, and with similar effect.

Every measure had now been employed, from which I could suggest the most distant probability of success; and the writings of the most eminent among the ancient as well as modern practitioners were in vain ransacked for Vol. VIII. Part II.

new remedies*. To those which I had used a fair and unprejudiced trial had been given. In particular, a liberal and almost unrestrained use had been made of the strongest purgatives, opium, wether, injections of every kind, (amounting, in number, altogether to sitty) electricity, the warm bath, the application of cold water, remedies so justly extolled, and so much relied on in the advanced stages of these complaints, but without the least success.

When I saw him on the fisteenth day of the disease, I sound him in the following state:—
The bowels continued obstinately constipated; the belly was hard, and immediately below the navel it was swelled somewhat irregularly: the pain was violent, but tensive, at times remitting, and increasing much on pressure. The vomitings were frequent, sometimes of a slimy matter, at others stercoraceous, having both the smell and appearance of liquid stools. The pulse was soft, weak, and irregular; the

^{*} I must except quickfilver, against which the concurrent testimony of many respectable authorities, as well as common sense, militate so powerfully, that I did not use it.

[†] Once being fick after a tobacco-smoke clyster, what was brought up, he said, tasted strongly of tobacco; but I could never learn that any other clyster had a similar effect.

tongue brown, but moist; the eyes sunk in the sockets, dull and heavy; the breathing short, frequent, and attended with constant motion of the nostrils; the hieeup was frequent and harrassing; his appetite and sleep had almost forsaken him; he had often a subsultus, sometimes a tendency to delirium, and his urine was seantily secreted, and frequently voided with some pain, depositing a copious brown sediment on standing.

The patient had hitherto fustained his complaint with great fortitude and resolution, and had suffered every plan to be put in execution with singular patience; but being now become sensible of his extreme danger, he was anxious and dejected; despair was settled in his countenance, and he requested he might be permitted to die peaceably. This was his situation, and so dreadful did it appear, that an alteration for the better scaree entered my mind.

I join those in opinion who think it better, in desperate cases, to have recourse to doubtful or even dangerous remedies, than suffer the patient to be lost without making use of any means to save him. Were we to observe this as an invariable rule; were we never to relinquish our attempts till they can no longer be

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employed, it would, I am confident, be productive of many extraordinary recoveries. Every practitioner, who is guided by these fentiments, can, doubtless, bring to mind feveral inftances wherein his apparently vain and fruitless perseverance has been crowned with the most unexpected success. The termination, however, of the present case is so decifively in point, that it is unnecessary to adduce any farther proof in support of the opinion. Actuated by this principle, and revolving in my mind the effect of the various articles which had been used, I could but observe, that, although no evacuation followed the application of the cold water, yet the patient was evidently easier after it; whereas quite the reverse was the case while he was in the warm bath; for he was then in greater pain than usual. This determined me once more to make trial of that remedy; but, in order to derive any material advantage from it, I was perfunded it would be necessary to urge it to a much greater length than I had hitherto. This was accordingly done, and to fuch a degree, that nothing but the extreme danger of the patient could justify my having recourse to such desperate proceeding.

As he was now much too weak to be removed into the washhouse, he was supported, fitting on the fide of the bed, with his feet in a tub. In this fituation two or three pails full of the coldest water were poured over his legs and thighs, fo that his feet and ancles were of course constantly immersed in the liquid. This operation was perpetually repeated for the space of ten minutes, when he was so much affected by the intense cold, that I judged it prudent to defist. He was wiped dry, and put to bed. Within the half hour, being then pretty well recovered, a pint and a half of cold water was injected by clyfter, and almost immediately after wet napkins were applied cold to the whole abdomen, and renewed as foon as they became in the least warm. The effect of this treatment was fo strongly marked, that it was really astonishing; for in a few minutes he had a profuse evacuation of uncommonly hard and large fæces. and this was followed by feveral thinner ones. He was now comparatively eafy: the fwelling and hardness of the belly was considerably abated; he had no farther return of the vomiting or hiccup; and there was every appearance of speedy recovery. The stools, however, notwithstanding they were passed in great abundance,

abundance, did not feem sufficient to answer the intention completely. Several doses of. fenna and falts, with warm relaxing and purging clysters, were then again applied, but with no better fuccess than they had been before. At the expiration of two days I was apprehensive our affairs were getting into the same channel as usual, in consequence of which I ordered the cold-water clysters and wet cloths to be repeated, and allowed him to take half a pint of cold water every hour till he had taken a quart. These again procured a tolerably good stool, and I was in hopes that a proper repetition of purging medicines by the mouth and rectum would now be able to effect their purpose. Still, however, I was mistaken, and at the end of three days more I had the mortification to find his bowels were as obstinately constipated as at firft.

Upon attentively confidering the case at this period, it occurred to me, that the first time the frigid operations were both internally and externally employed, the patient was extremely affected by the cold, and then a profuse evacuation soon took place; but the second time he seemed little affected by it, the evacuation was less, and it was longer before it was procured.

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This determined me to proceed exactly in the fame manner as I had done at first. Accordingly, two pailfuls of water were poured over his legs and thighs till such time as he became extremely cold, and then the cold clysters and cold cloths were applied. The event now fully answered my most sanguine wishes, for a profuse evacuation ensued, and I had the pleasure the next morning to find a common purgative had operated freely, and that the intestines were now completely unloaded.

It may not be improper to observe, that, notwithstanding the enormous and uncommonly large quantity of purging medicines which he had taken, so far was a purging from ensuing, that it was necessary to continue their use, once in two or three days, for some time after the obstruction was removed.

In about three weeks after the patient had overcome this complaint, he became ascitic. As soon as this was perceived, diuretics of various kinds were had recourse to, particularly squills and fox glove, but without effect. Cream of tartar, in the quantity of an ounce, was given every day; blood and mucus were evacuated by it, but no water. Upon the prefumption that the liver was concerned in the production

production of the difease, large doses of mercurial ointment, with camphor, were rubbed over the region of that vifcus; and calomel, to the amount of fix grains a day, was, for fome time, administered; but, at the expiration of three weeks, the fwelling had increased fo much, and was so painful, that it was necesfary to draw off the water. Nineteen pints were evacuated; on submitting part of it to a degree of heat sufficient to coagulate the serum, part of it only coagulated, and that in an imperfect degree. The fox glove was again had recourse to; one grain of the powder was given twice a day for a fortnight: it then occasioned fickness and slight vomiting, but no increase of urinc. He was tapped feveral times; but that, and in short every other remedy, proved merely palliative: he struggled till the beginning of December, and then died.

I very much wished to examine the state of the abdominal viscera after death; but several circumstances concurred in preventing me. I was the less anxious, however, about it, as in the space of near nine months he had no return of the stoppage in the bowels, except such as readily gave way to a mild dose of common physic.

CASÉ II.

About the middle of June, 1784, I was defired to see Mrs. Neville at Ludderdown, a married woman, aged twenty-seven, and somewhat inclined to corpulency.

She had lately recovered from lying-in of her fecond child. Her first labour was so violent and fudden, it was accomplished without the affistance of a midwise. The placenta separated very properly; but on the third day after delivery she was attacked with shivering, which continued three or four hours, and was fucceeded by profuse flooding, which, when it had weakened her very confiderably, ceased spontaneoufly. The fecond was equally as fudden as the first, not allowing time for the furgeon to come to her affistance. She was, on the third day, attacked with shivering and flooding, which, as before, stopped when it had very much reduced her.

Exactly one month after her last labour she was feized with fevere, shooting, darting pains in the lower part of the abdomen, immediately above the pubis, occupying a space about the fize of the palm of the hand, always fixed to that part, and never in the least wandering VOL. VIII. PART II. from

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from it. She began at the fame time to be affected with fever and costiveness.

These complaints continually increasing, I was, on the seventh day, desired to visit her, when I received the preceding account.

The integuments of the abdomen were not fwelled, or fore to the touch; but on preffing hard above the pubis the pain was very fevere. No flools had passed for a week, except now and then a small quantity about the fize of a nut, and as hard as a stone; but she had a constant defire, and every quarter of an hour a violent straining came on, of about five minutes continuance, during which time her pain was almost intolerable: in the remissions, however, she was pretty easy, and now and then enjoyed short intervals of refreshing sleep.

Her pulse was weak, small, and somewhat hard; the heat of the body was considerable, the skin was dry, and the urine made frequently, in small quantities, high coloured, and without sediment. Her countenance was sometimes slushed, and much dejected, having the resemblance of one worn out by fatigue; but at the same time it had that peculiar appearance, which I find myself unable to describe, but which persuaded me the complaint had not made that impression

impression on the constitution which, from the history of the case, I should have expected. Her tongue was white, rough, and dry; and she was very frequently drinking small quantities of some weak liquid to abate her thirst.

I thought it adviseable to try the effect of bleeding her; but when about eight ounces of blood were taken away, the pulse lowered, and I immediately stopped: on standing, the blood was somewhat buffy, but in other respects looked not amis.

Pills, composed of the eathartic extract, calomel, and opium, (a medicine I have often employed with fingular advantage in severe costiveness) were recommended to be taken every half hour till they produced the desired effect. Purging clysters were ordered every hour, and warm somentations were unremittingly applied to the whole abdomen.

On visiting her the next day, I found there had been no evacuation by stool: the pain had been more considerable, and every time the pills or any drink were given, the stomach rejected them almost immediately. The bleeding was repeated. Castor oil, whether given by itself, in gruel, or mixed with peppermint water, shared the same sate as every thing else;

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I therefore ordered two or three grains of opium to be given immediately; and an hour after, various purgative medicines, and clysters of infusion of tobacco, were again to be perfevered in. The warm bath was ordered, and the fomentations were to be continued in the intervals.

This plan proved equally as unfuccessful as the preceding, and I found my patient was evidently worse.

I feel no hesitation in acknowledging I was entirely at a loss with respect to the cause of this disease, and found no difficulty in persuading myself it would remain inscrutable, till such time as the affair was cleared up by dissection.

I had previously inquired whether there were any swellings about the belly, and was answered in the negative. I was in hopes there might be a collection of hardened fæces in the rectum; but, from the account of the nurse who gave the clysters, that could not be supposed to be the case. Being unwilling, however, to rely on the information of the nurse, I determined to be satisfied of these two particulars; but while I went into an adjoining room, the patient had the sensation of something bursting suddenly

denly within her, and there immediately followed a very plentiful stool, mixed with matter, which procured her almost instant relief. Wishing to be satisfied from whence this matter proceeded, I defired the women to fearch; but they not agreeing in their report, I was defired to examine, and perceived it to flow from the vagina. On introducing my finger, the difcharge increased; but, on the strictest examination, I was not able to determine the precise part from whence it came. All circumstances, however, being confidered, I think there is greater probability it was feated in the cellular membrane, connecting the vagina and rectum, than in any other part. A clyster was now injected, and it passed very freely. From this time stools were passed very regularly, and she foon became perfectly well.

Gravesend, April 17, 1787. XII. On the Cause of the Death of Children when the Umbilical Cord is compressed during Labour. By John Clarke, Licentiate in Midwifery of the Royal College of Physicians, and Teacher of Midwifery in London.

where children, which had certainly been alive in the beginning of labour, are born dead; a circumstance which most commonly arises from compression of the sunis umbilicalis. This accident may be produced in different ways; but is most frequently met with where the cord is unusually long. When this is the case, as it may lie at any part, so it may happen to be near the os uteri, and may descend, as an original presentation, into the cavity of the pelvis before any part of the child; when, if it be not returned, or the labour expedited, the child is often born dead.

It fometimes happens also, that practitioners, with a view to increase the action of the uterus, and shorten the duration of a labour, rupture the membranes, and discharge the waters, or they break spontaneously in the early part of a labour. By this means a fort of eddy or cur-

rent is made, and the funis (which would not otherwise have happened) is brought by the stream of water through the os uteri, where, if it be suffered to remain, it will probably undergo compression in the progress of the labour, and the child will be destroyed *.

Various opinions have been entertained as to the cause of the child's death from this accident, and the most general of these have been, that it was to be attributed either to apoplexy, or to the heart and vessels being so distended

* Perhaps one great use of the membranes, containing the waters, may be to preserve the life of the child from the injuries to which it might otherwise be liable from the contractions of the uterus; for if the funis should be in an unfavourable fituation, as in the fold of a limb, or even between the body of the child and the fides of the uterus, the circulation through its vessels might be endangered. This is prevented, in a great measure, whilst the membranes continue whole, because then the uterus does not act upon the child itself, but only in the same manner as pressure upon a bladder, full of water, affects any thing contained within it; and accordingly, the life of the child is generally safe till the waters have run off. This should afford a practical observation, viz. that we should be very careful never wantonly, or from aukwardness in our examinations, or from a defire to fave our own time. to rupture the membranes when the cord might flip down, but by all means to avoid it, except where the fafety of the mother or child, or both, may demand it.

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with blood, that they were rendered incapable of action, or to the course of nourishment being shut up. But in the former case the death would not be so instantaneous; and the next supposition is probably not sounded in fact, since at what period soever the obstruction takes place, there will only be its own proper quantity of blood in the body of the child, and therefore we can conceive it possible that the circulation through it might be performed, if there were no other obstacle.

But as I am disposed to believe that the placenta certainly performs, in the sætal state, a similar office to that which the lungs do afterwards, besides the conveyance of nourishment, I am inclined to think that the death of children, from compression of the sunis, is owing to want of air: that they are destroyed in the same manner as drowned persons; and this will explain why the same means of recovery will succeed generally alike in both cases.

The application or admission of air to their blood seems to be necessary in all animals; but

^{*} To the last opinion it may be answered, that a child will live without nourishment for some days after birth, and therefore would not be so soon killed for want of it in its passage through the pelvis.

the mode in which this is effected is various. In some it is performed by the immediate application of air to the coats of the pulmonary vessels, as in such animals who live in the open air; in others, through the medium of sluids (capable of being impregnated with air) applied to their lungs, as in many of the tribe of shell sishes, which, from their structure, are incapable of locomotion, as oysters, &c.

If then the influence of air be necessary for fupporting animal life generally, it would feem highly probable that it is so also to the sætus; and upon this principle we find in oviparous animals a particular apparatus in the construction of the egg for admitting air to the blood of the embryo, and another for exposure of the blood to the air.

In viviparous animals there appears to be no other mode of effecting this than by means of the placenta.

In the construction of the vascular system in adults, great care is taken by nature to return the blood, which has performed the circulation, quickly to the lungs, and from thence to the heart, when it has acquired the benefit of respiration, so that it may again pass over the whole body.

Vol. VIII. PART II. A a A fimi-

A fimilar apparatus is found in the fœtal state for carrying the blood to the placenta, and then back to the general circulation, avoiding, however, the lungs, from passing through which no advantage could be derived.

If in adults the admission of air to the lungs be obstructed, or excluded either by tying the trachea, or by immersing the mouth in water, or if there be any obstruction in the vessels to the passage of the blood through them, life will be carried on with difficulty, or entirely extinguished.

In like manner the powers of life will be depressed, or altogether lost, by any obstruction to the passage of blood through the placenta, and nearly in the same time as obstruction to the passage of air through the lungs would destroy an adult. The way in which the influence of air is conveyed by the placenta to the sectal blood probably resembles that by which it is conveyed to oysters, &c. by means of water; and as it is said that sishes cannot live in water from which all the atmospheric air is taken away, so neither can a child survive any accident which prevents its blood, in the very minute vessels of the sectal portion of the placenta, from being applied to the mother's blood

in the cells of the maternal portion of the placenta, which blood being supplied by the spermatic and hypogastric arteries, has consequently received the benefit of air from the lungs of the mother.

If then the defect of air be the cause of the death when the sunis is compressed, the mode of recovery will resemble that in drowned persons.

The application of stimuli simply to drowned persons only reproduces life by throwing the organs of respiration into action; and no stimulus has so powerful an effect as that of fresh air applied to the lungs. Warmth, either excited by friction, warm bath, or any other means, may also assist by supplying the body with extraneous heat, and so preventing the exertion of the weakened powers of life, (which otherwise might be exhausted in the attempt) to reproduce and keep up its own heat; but warmth alone will not be sufficient to revive the patient.

When children are born apparently dead, the fame means become necessary for their recovery; and although we may affist the revival by warmth or friction, yet, unless we can produce the action of respiration, as the source of

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air from the placenta is at an end, all our attempts will be fruitless; as I had occasion very lately to lament, in a case which I saw along with Dr. Denman, where, though by imitating respiration, the action of the heart was excited and kept up for an hour, yet as the muscles of respiration in the child were not capable of excitement, the heart at length ceased to act, and the child died.

As it appears, then, that there is a necessity of air for supporting all animal life, we may conclude that it is also necessary in the sœtus, and the opinion is strengthened by analogy with the sœtal state of oviparous animals.

- 2. By comparing the return of the blood to the placenta in the fœtus with that to the lungs in adults, it appears probable that their offices are fimilar.
- 3. If the former positions be true, then the consequences of any obstruction to the circulation in the adult, through the trachea or the pulmonary vessels, and in the sætus, through the funis umbilicalis, will be analogous; and
- 4. The means of recovery (viz. the application of the influence of air to the blood again) will be the fame in both inflances, which we find to be the case.

5. Therefore I think we may fairly deduce this inference, that children, which are destroyed by compression of the sum is umbilicalis, die for want of those advantages which animals receive from the influence of air upon their blood.

Chancery Lane, May 31, 1787.

XIII. Extract of a Letter from Mr. Robert Chesher, Surgeon at Hinckley, in Leicester-shire; containing an Account of a Case of Luxation of the Os Humeri, in which the Reduction of the Bone was facilitated by inducing Sickness and Faintness by Means of Emetic Tartar. Communicated to Dr. Simmons by Dr. Denman, Physician in London.

SOME time ago I was called to a very robust man, whose shoulder was dislocated, the head of the bone being slipped pretty far under the pectoral muscle. Many fruitless attempts had been made to reduce it. I was at that time ill, and not feeling able to exert myself in such a manner as to have a chance of overcoming the difficulty, I gave him, while he was fitting on the chair, a folution of emetic tartar in mint water. In a fhort space of time it was repeated, and, after the third dose, he became sick, and so faint, that he could scarcely support himself in the chair. During this state of faintness, I directed a moderate extension to be made, and then guiding the head of the bone, it immediately, and with great ease, was returned into the socket.

* In the Philosophical Transactions, Vol. LI. the reader will find a case of luxated thigh bone, by Mr. Yonge, Surgeon at Plymouth, in which "the muscles were so much weakened" by the patient's being confined to his bed, and wasted by frequently repeated purges, that they very easily gave way," and the reduction was effected on the twenty-fifth day, after having been in vain attempted by the usual mode of extension immediately after the accident. The event of that case led Mr. Yonge very ingeniously to suggest, whether "the giving frong purgatives, and frequently repeating them, so as to render the inuscles of strong muscular subjects more lax and weak, might not be employed with advantage in luxations of ne os numeri;" and the oase related by Mr. Chesher shews how well this idea was founded. — Editor.

XIV. Observations on the Use of Arsenic in Intermittent Fevers. By Robert Willan, M. D. Member of the Royal College of Physicians, and Physician to the Finsbury and Public Dispensaries in London.

IN a pamphlet lately published by Dr. Fow-ler, Physician at Stafford, arsenic has been recommended as a fafe and effectual remedy for the cure of intermittents *. This mode of practice was at first exclaimed against by the cautious part of the faculty, from an apprehension that the indiscriminate use of so active a mineral might be productive of dangerous consequences. Several practitioners, however, ventured to administer it, and gave a favourable report of their fuccess. I was induced, at Dr. Fowler's request, to make an extensive trial of its powers in many obstinate agues which came under my care during the present fpring, and for that purpose had some of the folution made according to the formula prefcribed in the treatife above mentioned. The account of my experience on this subject seems to be not improper for the Medical Journal.

CASE I.

John Hawes, aged twenty-fix years, was admitted at the Public Dispensary, in March, 1787, for a tertian intermittent, which had been suffered to go on some weeks without any proper treatment. The disorder not yielding to the first exhibition of the bark, I ordered (after an emetic) twelve drops * of the mineral solution to be taken three times a day in barley water. The fit never returned afterwards, and he was dismissed at the end of a fortnight in persect health. The above dose did not produce nausea, griping, or any other disagreeable sensation.

CASE II.

A young woman, about seventeen years of age, admitted at the same time, had laboured under a tertian ague for nine weeks. An emetic and purgative administered at the beginning of her complaint, and afterwards the bark, had produced no effect.

March 17th, she began to take fifteen drops of the solution thrice a day, and underwent the

^{*} Eighty drops of the folution contain about half a grain of arsenic. — See Vol. VII. page 197.

[193]

next fit in course; but had after that no more. The medicine was continued for ten days without any sensible operation.

CASE III.

Charles Deves, twelve years old, of a delicate and irritable habit, and confiderably emaciated, was taken in April, 1787, with regular paroxysms of a quotidian. As there seemed to be a tendency to abdominal congestions, I thought it material to stop the progress of the disease early. After the proper evacuations, finding his stomach would not bear Peruvian bark, bitters, or other tonics usually employed, I ordered ten drops of the folution to be given as in the former cases, and was pleased to obferve an equal effect take place immediately. It prevented the return of the fits, without occafioning any bad fymptom, notwithstanding the difagreeable circumstances of this patient. His constitution was in a short time so much improved under the continued use of the folution, that he undertook a place of some labour, where he yet remains, and in good health.

Vol. VIII. PART II. Bb CASE

[194]

CASE IV.

George Egintown, aged thirty-fix, for a quotidian of three weeks standing, was directed, April the 21st, 1787, to take sisteen drops of the solution, as usual. He increased the dose of his own accord to twenty-seven drops, which made him very sick. On the 25th I found that his sit had never returned. He complained of great pain and stiffness in his arms and shoulders, which he attributed to the medicine. This symptom presently abated, he being dismissed, cured, on the 30th.

CASE V.

John Shepherd, aged forty years, after a catarrhal complaint, was attacked with irregular shiverings, which returned at first every day; afterwards every third day. These continued generally two or three hours at a time, and were succeeded by profuse sweating throughout the night. Emetics, bark, and elixir of vitriol, had afforded him no alleviation. From April the 11th to April the 23d, he took the solution in doses of sitteen drops, and never felt any return of the shivering sits or sweating.

[195]

He was difmiffed a few days after in good health and spirits.

CASE VI.

In the beginning of April Mr. Champney, Apothecary in Holborn, mentioned to me a case of obstinate tertian in St. Andrew's workhouse, which had for nine weeks resisted every plan of treatment. The patient was a woman, aged forty, of a debile constitution, and accustomed to little exercise. Emetics, bark, joined with pulv. rad. serpentar. and zinzib. alum, and sal. tartar. vitriolum album, &c. properly applied, had failed of producing the desired effect.

I requested Mr. Champney to make trial of the arsenical solution, in the dose of twelve drops, to be gradually increased to twenty. The return of the next expected paroxysm was prevented by this plan; but the complaint asterwards recurred twice, and then disappeared, leaving her to recover strength gradually. If ever she took more than sisteen drops of the solution, it made her a little sick. I called upon this patient on the 11th of April, when she complained of pains in the arm and shoulders, as in the case of George Egintown. These

pains went away, even while the medicine was continued in a moderate dose.

The weather being at the time remarkably cold, I was doubtful whether to refer this fymptom, in these two cases, to the remedy, or to the feafon: it did not occur on any other occasion.

CASE VII.

A young man, about twenty-feven years of age, being cured of a tertian ague by the three first doses of the solution, discontinued his attendance. Some time after, having incautiously exposed himself to cold, he suffered a relapse, and, of his own accord, began to take the remedy again, but without making any impreffion upon his disorder. He therefore applied to me once more; and it gave me pleasure to observe, when the catarrhal complaints were fully removed, that his paroxysms were immediately prevented by the use of the solution.

The above cases I have given in detail, as being the first which occurred, and thence soliciting more particular attention. It feems only necessary farther to add a general report from the fum total of patients treated in this manner. The folution was prescribed for about forty

others,

others, in different species of intermittents, and succeeded almost instantaneously in every case.

I gave it at different ages, from five years to feventy-two, in doses proportionable, viz. from four drops to twenty. No nausea, pains of the stomach, or griping, were occasioned by it, except in the two patients before mentioned. In short, I do not know a medicine more safe than the arsenical solution, when it is thus cautiously administered, nor any one that answers the end proposed more pleasantly and effectually.

I can also add the testimony of several gentlemen to the account now delivered; I may particularly mention Mr. Bell, Surgeon at Chester le Street; Dr. Marsh, of Tavistock Street, Bedford Square; and my colleague, Mr. Pearson, Surgeon to the Public Dispensary, and to the Lock Hospital.

A medicine of no difagreeable fensible qualities, and which, in a very small bulk, produces effects so considerable, must be looked on as an acquisition to medical practice. It is valuable, as a cheap and sure remedy for the most obstinate cases of intermittent severs, and especially in children, who will seldom bear the bark, or other medicines commonly employed.

ployed. Its use may be farther extended to a variety of diseases, as we now know the mode of administering it safely. I have myself tried it in some particular disorders with satisfaction, but am not yet prepared to write specifically on them. My fuccess in the cases above deferibed occasioned an agreeable furprise, and has entirely done away the fuspicions I at first entertained respecting the internal use of arfenic. Dr. Fowler, by standing forth to recommend a more general, though cautious, administration of this mineral, has been exposed to some degree of obloquy. I am induced to publish these few observations, not only with a view of doing justice to my friend, but from thinking the subject of importance to the faculty at large. The principal objection made to this remedy, from the mischievous consequences it may be supposed to produce when applied by the ignorant and unskilful, will, I apprehend, have little weight with philosophical inquirers, whose wish is to promote medical Science.

Ely Place, Helborn, May 30th, 1787.

CATALOGUE OF BOOKS.

1. A N Effay on difficult Labours. Part I. By Thomas Denman, M. D. Licentiate in Midwifery of the College of Physicians. 8vo. Johnson, London, 1787.

2. Practical Observations on the Natural History and Cure of the Venereal Disease; in three volumes. By John Howard, Surgeon.

8vo. Baldwin, London, 1787.

3. A Treatife on the Venom of the Viper; on the American Poisons; and on the Cherry Laurel, and some other Vegetable Poisons: to which are annexed, Observations on the primitive structure of the Animal Body; different Experiments on the reproduction of the Nerves; and a description of a new Canal of the Eye. Translated from the original French of Felix Fontana, Naturalist to his R. H. the Grand Duke of Tuscany, and Director of his Cabinet of Natural History. By Joseph Skinner, Navy Surgeon, and Member of the Corporation of Surgeons of London. 8vo. Murray, London, 1787. 2 vols.

4. Physiological Conjectures concerning certain functions of the Human Economy in the Feetus Fœtus and the Adult. By James Rymer, 8vo. Evans, London, 1787.

5. Memoirs of the Medical Society of London, inflituted in the year 1773. Vol. 1. 8vo. Dilly, London, 1787.

6. An Extraordinary Case of lacerated Vagiga, at the sull period of Gestation; with Observations, tending to show that many Cases related as Ruptures of the Uterus, have been lacerations of the Vagina, By William Goldson, Member of the Corporation of Surgeons in London. 8vo. Murray, London, 1787.

7. An Estimate of the Temperature of different Latitudes. By Richard Kirwan, Esq. F.R.S. and Member of the Academies of Stockholm, Upsal, Dijon, Dublin, Philadelphia, &c. 8vo. Elmsy, London, 1787.

8. An Essay on Phlogiston, and the Constitution of Acids. By Richard Kirwan, Esq. F. R. S. &c. 8vo. Einsly, London, 1787.

9. A Lecture containing plain Descriptions of the situation of the large Blood Vessels of the extremities; the Instrument called Tourniquet; and the methods of making essectual pressure on the Arteries, in cases of dangerous essurements of Blood from Wounds, &c. Delivered to the Scholars of the Maritime School

at Chelsea. First printed for their use, and now published for general benefit, by William Blizard, F. A. S. Surgeon to the London Hospital, and the Hon. Artillery Company, and Lecturer in Anatomy and Surgery. 8vo. Dilly, London, 1786.

danger of Copper, and Bell Metal, in Pharmaceutical and Chemical preparations. By William Blizard, F. A. S. 8vo. Dilly, London, 1786.

in Worm Cases, by a mild and efficacious Medicine, which strengthens the Constitution, without any preparation of Mercury or Tin; and proves that all Complaints occasioned by Worms, may be cured without using of violent Medicines, which always injure the Constitution of the Patient. Also, a certain Method of curing that obstinate Constipation of the Bowels, commonly called the Dry Gripes, in a short time, frequently less than twenty-four hours; which Painters, Plumbers, and all workers of White Lead, are grievously afflicted with. By J. Harrison, Member of the Corporation of Surgeons, in London. Faulder. 8vo. London, 1786.

12. A Treatise on the Causes and Effects of Schirrous Tumours and Cancers. To which Vol. VIII. Part II. C c are

Authors Apology, for introducing to the world the late Mr. Guy's Arcanum, respecting the above disorders; together with testimonials of his success; evincing from reason and experience, that application to be the only one extant, capable of effectually removing all Schirrous Tumours, without the knife. By Henry Saffery, Member of the Corporation of Surgeons, London, and late Surgeon of Light Dragoons, in America. 8vo. Lane, London, 1786.

13. An Oration delivered before the American Philosophical Society, held in Philadelphia, on the 27th of February, 1786; containing an Inquiry into the influence of Phyfical Causes upon the Moral Faculty. By Benjamin Rush, M. D. and Prosessor of Chemistry in the University of Pennsylvania, 4to. Philadelphia, 1786.

14. A Synopsis of a Course of Lectures on the Theory and Practice of Medicine, in sour Parts. Part I. By B. Waterhouse, M. D. Professor of the Theory and Practice of Physic in the University of Cambridge, New England; and of Natural History in the College of Rhode Island. Svo. Boston, 1786.

15. Dissertatio

15. Differtatio Inauguralis, fistens experimenta chemica, et instrumenta chirurgica emendata. Auctore Carol. Henric. Bernh. Weigel, 4to. Gryphiæ, 1785.

16. Programma, quo Christ. Ehrenfr. Weigel, Dissertationem C. H. B. Weigel, publice defendendam indicit, præmittens Historiæ Baryllio-

rum rudimenta. 4to. Gryphiæ, 1785.

17. Sermo Academicus de Civis Medici in Republica conditione atque officiis ex lege præcipue erutis, quem professionis Medicæ adeundæ caussa die 24 Novembr. 1785. I. P. Frank, M. D. et in Reg. Ticin. Academia Med. Pract. Prof. 8vo. Pavia, 1785.

18. I. P. Frank Oratio Academica, de vesica urinali ex vicinia Morbosa ægrotante, Die 29, Aprilis, 1786, recitata. 8vo. Pavia, 1786.

19. Francisci Tavares, M. D. in Conimbric. Univers. P. P. O. &c. de Pharmacologia Libellus Academicis Prælectionibus accomodatus. \$vo. Coimbra, 1786.

20. Synopsis Nosologiæ Methodicæ, continens Genera Morborum. Auctore Gulielmo Cullen, M. D. editio quarta, cinendata et plurimum aucta. Recudi curavit et præsatus est J. P. Frank, M. D. &c. 8vo. Pavia, 1787.

C c 2 21. Differtațio

21. Differtatio Inauguralis Medica de Vermibus medicatis, Auctore Joanne Justo Guilielmo Forcke, Springa-Hannoverano. 4to. Goettingæ, 1786.

22. Dissertatio Medica de Medicina Africanorum, quam præside Carol. P. Thunberg, M. D. Pros. Med. et Botan. Reg. et Ord. &c. pro gradu Doctoris publico examini subjicit Petrus Ulr. Berg. Uplandus, 1785.

23. Disputatio Botanica de Erica, quam præfide Carol. P. Thunberg, Med. Doct. Prof. Med. et Botan. &c. publico examini subjicit Jacobus Bernbardus Struve, Vestro-Gothus. 4to. Upsaliæ, 1785, c. tab. æn. 6.

24. Differtatio Botanico-Medica de Aloe, quam præside C. P. Ibunberg, M. D. Pros. Med. et Botan &c. publico examini subjicit Andreas Hesselius, V. Gothus, 4to. Upsaliæ, 1785.

25. Exercitationes Physico-Medicæ de admiranda Naturæ simplicitate, et de utili quidem, sed admodum limitanda, Medicina populari, auctore Leon. Ludov. Finke, M. D. et Prof. in Acad. Lingenss. 8vo. 1785.

26. Historia Salicum iconibus illustrata a Georgio Francisco Hossman. Fascic. I. II. III. Folio. Lipsiæ, 1785-6.

27. De Violæ Caninæ in Medicina usu, auctore Foanne Henrico Andrea Niemeyer, Nordheimenfi. 4to. Goettingæ, 1785.

28. Methodus Formulas Medicas conscriben. di: in usum prælectionum Açademicarum edidit 70. Frid. Pichler, M. D. et Coll. Med. Argentorati Socius. 4to. Argentor. 1785.

29. Geo. Rud. Boebmeri, Bibliotheca Scriptorum Historiæ Naturalis, Oeconomiæ, aliarumque artium ac Scientiarum ad illam pertinentium realis systematica. Tom. I. 8vo. Lipsiæ. 1785.

- 30. Remede nouveau, contre les Maladies veneriennes, tiré du regne Animal; ou Essai fur la vertu anti-venerienne des Alkalis volatils; dans lequel on expose la methode d'administrer ces sels; avec des reflexions, des obfervations, et des remarques critiques tendantes a perfectionner les autres methodes. Par M. Bern. Peyrilhe, D. M. Professeur Royal de Chimie et de Botanique au College de Chirurgie de Paris, &c. Seconde edition, revue et confiderablement augmentée. 8vo. Montpellier, 1786.
- 1 31. Essai d'un Système des Transitions de la Nature dans le regne Mineral. Par M. le Comte

Comte G. de Razoumowsky, Membre de la Société de Lausanne, &c. 8vo. Lausanne, 1785.

32. Les Regles et les Preceptes de la Santé, de Plutarque, traduits du Grec par Jacques Amyot, Grand Aumonier de France, avec des Notes et des Observations de M. l'Abbé Brotier. 12mo. Paris, 1785.

33. Projet d'Instruction sur une Maladie convulsive, frequente dans les Colonies de l'Amerique, connue sous le nom de Tetanos. Demandé par le Ministre de la Marine à la Soclété Royale de Medecine. 8vo. Paris, 1786.

34. L'Art de Prolonger la Vie, et de Conferver la Santé; ou Traité d'Hygiene. Par M. Pressavin, Gradué de l'Université de Paris, Membre du College Royal de Chirurgie de Lyon, et ancien Demonstrateur en Matiere Medico-Chirurgicale. 8vo. Lyon, 1784.

35. Memoire qui a remporté le Prix au jugement de l'Academie de Dijon en 1782, fur la question proposée en ces termes: determiner avec plus de precision qu'on ne l'a fait jusqu'a present, le caractere des sievres intermittentes, et indiquer par des signes non equivoques, les circonstances dans lesquelles les sebrisuges peuvent etre employés avec avantage, et sans danger, pour les malades. Par M.

Voullonn:

Voullonne, Docteur en Medccine de la Faculté de Montpellier, Agrégé et premier Professeur dans la Faculté d'Avignon. 8vo. Avignon, 1786.

36. Nouvelles instructives Bibliographiques, historiques, et critiques, de Medecine, Chirurgie et Pharmacie; ou Recueil raisonné de tout ce qu'il importe d'apprendre chaque année pour etre au courant des connoissances et à l'abri des erreurs relatives a l'art de guerir. Années 1785, 86, et 87. Tom. III. 12mo. Paris, 1785-6-7.

37. Examen d'un Ouvrage intitulé Nouvelles instructives, bibliographiques, historiques et critiques de Medecine, Chirurgie, Pharmacie, &c. Par M. Pierre Sue, ancien Prevot du College de Chirurgie, &c. 8vo. Paris, 1786.

38. Ueber die Regeneration der Nerven. Ein Brief an Herrn Peter Camper. i. e. On the Regeneration of Nerves. A letter to M. Peter Camper. By Frederick Michaelis, M. D. &c. 8vo. Cassel, 1785.

. 39. Ueber anwendung der Elektricitaet bey Kranken, nebst der beschreibung der neuen Maschine von Nairne, zur positiven und negativen Elektricitaet; auch eines neuen Elektrischen Bettes. i. e. On the Application of Electricity to the Sick; with a Description of Nairne's

Nairne's new Machine for positive and negative Electricity; and likewise of a new Electrical Bed. By J. L. Boeckmann, Professeur of Natural Philosophy at Carlsruhe. 8vo. Durlach, 1786; with a Plate.

40. Theoretische und practische Bemerkungen ueber des Muskelvermoegen der haargefaesschen; nebst einigen anwendungen desselben zur erklaerung einiger erscheinungen in dem gesunden und kranken thierischen Koerperie. e. Theoretical and practical Observations on the Muscular power of the Capillary Vessels; with some applications of it to the explanation of certain appearances in the healthy and diseased Animal body. By H. Van der Bosch. 8vo. Munster. 1786.

41. Ueber den gegenwaertigen mangel guter Wundaerzte und Geburtshelfer in dem gröefften Theile Deutschlands, nebst einigen Vorschlaegen, diesem mangel abzuhelfen. i. e. on the present scarcity of good Surgeons and Accoucheurs in the greater part of Germany, with some proposals to remedy this desect. By G. F. B. Raven, Surgeon and Accoucheur at Zell. Svo. Goettingen. 1786.

42. Instruzioni Mediche per le genti di Campagna, 8vo. Bassano. 1785.

43. Instruzione

43. Instruzione veterinaria pe maniscalenio e coloni sulla presente epidemia contagiosa de' buoi limitrosa all'agro Riminese; composta, e corredata di note dal Conte Francesco Bonsi. 3vo. Rimino. 1786.

44. Odontologia, offia trattato fopra i denti: opera di A. Campani, publico Dentista Florentino, &c. 8vo. Firenze, 1786.

45. Differtazione fopra l'origine delle malattie, e fopra il loro specifico rimedio, aggiuntovi il metodo di adoperarlo. 8vo. Roma, 1787.

46. Essai sur le Lait consideré medicinalement sous ses differens aspects, ou Histoire de ce qui a rapport à ce fluide chez les semmes, les ensans et les adultes, soit qu'on le regarde comme cause de maladie, comme aliment, ou comme medicament. Par M. Petit-Radel, Docteur Regent de la Faculté de Medecine de Paris, et aneien Chirurgien Major du Roi dans les Indes Orientales. 8vo. Paris, 1786.

47. Recherches fur la cause des Affections hypocondriaques, appelées communement vapeurs; ou Lettres d'un Medecin sur ces affections. On y a joint un Journal de l'Etat du corps en raison de la persection de la transpiration et de la temperature de l'air. Par M.

Dd

Glaude

VOL. VIII, PART II,

Claude Revillon, D. M. de l'Academie des Sciences de Dijon, Correspondant de la Société Royale de Medecine de Paris, à Macon. Nouvelle edition. 8vo. Paris, 1786.

48. Essais sur l'Histoire Medico-topographique de Paris, ou Lettres a M. d'Aumont, Professeur en Medecine a Valence, sur le Climat de Paris, sur l'Etat de la Medecine, sur le Caractère et le Traitement des Maladies, et particulierement sur la petite verole et l'Inoculation. Par M. Menuret de Chambaud, D. M. de l'Université de Montpellier, Medecin Consultant de Madame la Comtesse d'Artois, &c. 12mo. Paris, 1786.

49. Traité des Maladies des yeux et des Oreilles, confiderées sous le rapport des quatres parties ou quatre ages de la vie de l'homme, avec les remedes curatifs, et les moyens propres a les preserver d'accidens; avec Planches gravées en taille douce. Par M. l'Abbé Desmonceaux. 2 Tomes. 8vo. Paris, 1786.

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1785.

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Effay

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63. Henrici Augusti Wrisberg, Phil. et Med. Doct. Consil. Aulici Regii et Electoralis, Med. et Anat. in Univers. Georgia Augusta Prosess. public. et ordin. &c. Sylloge Commentationum Anatomicarum, 1. De membranarum ac involucrorum continuationibus; 2. De nervis arterias venasque comitantibus; et 3. De nervis pharyngis. 4to. Goettingæ, 1786.

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73. Traité d'Anatomie et de Physiologie, avec des planches Coloriées, representant au naturel les divers organes de l'hommé et des animaux.

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74. Recherches sur l'origine et le siege du Scorbut, et des sievres putrides; ouvrage traduit de l'Anglois de M. Milman, par M. Vigaroux de Montagut, D. M. et Membre de la Société Royale des Sciences de Montpellier. 8vo. Paris, 1786.

75. Cours de Matiere Medicale de M. Cullen, D. M. ancien Professeur de Medecine clinique, de Chemie, de Matiere Medicale, &c.
dans l'Université d'Edinbourg, mis a la portée
de la bonne Education; traduit de l'Anglois,
pour servir d'Introduction a ses Elemens de
Medecine pratique, auquel ou a ajouté des
Notes et des Observations. Par M. Caulet de
Veaumorel, Medecin de la Maison de Monsieur
Frere du Roi. Tome I. 8vo. Paris, 1787.

LONDON MEDICAL JOURNAL,

FOR THE YEAR 1787,

PART THE THIRD,

I. An Account of the Medicinal Plants growing in Jamaica. By William Wright, M. D. F. R. S. and of the Royal College of Physicians and Royal Society of Edinburgh. Communicated in a Letter to Sir Joseph Banks, Bart. P. R. S. and by him to Dr. Simmons.

To Sir Joseph Banks, Bart. P. R. S.

SIR,

A T the request of the late Dr. Fothergill and Dr. Solander, I drew up an account of the officinal plants growing in Jamaica for the Medical Society of London; but the death of those valuable friends, and the dissolution of that Society, have occasioned it to remain unpublished. Having now revised this paper, and added thereto a considerable number of observations and facts, I take the liberty, Sir, of Vol. VIII. Part III. Ee pre-

presenting it to you as a testimony of my respect, and, if it meets with your approbation, I request the favour of you to transmit it to Dr. Simmons, to be inserted in the London Medical Journal.

I have the honour to be, Sir,
Your most obedient and very
Humble Servant,

WILLIAM WRIGHT.

Edinburgh, May 27th, 1787.

INTRODUCTION.

I BEG leave to observe that the following descriptions of plants were made on the spot, and that the medical remarks are the result of careful observation and experience in the practice of physic for many years in Jamaica.

I flatter myself that I shall be found to have made discoveries, new and important, which have escaped the notice of Sloane, Jacquin, and Browne, and that what I have written will throw some light on the history of the materia medica. If men of abilities and observation would contribute thus to the public stock, we might hope that the history of foreign drugs would soon be made more perfect.

I. ALOE

1. ALOE PERFOLIATA. — Hepatic Aloes. — Cabaline Aloes. — Barbadoes Aloes.

This is a common plant in all the West-India islands. It is known by the name of fempervivum, and is cultivated particularly in Barbadoes.

This plant flowers in June, but bears no feed: the young shoots from the roots serve to propagate it.

Hepatic aloes is obtained in the following manner:—The plant is pulled up by the roots, and carefully cleanfed from the earth or other impurities. It is then fliced and cut in pieces into small hand baskets or nets. These nets or baskets are put into large iron boilers with water, and boiled for ten minutes, when they are taken out, and fresh parcels supplied till the liquor is strong and black.

At this period the liquor is thrown through a strainer into a deep vat, narrow at bottom, to cool, and to deposit its fæculent parts. Next day the clear liquor is drawn off by a cock, and again committed to the large iron vessel. At first it is boiled briskly, but towards the end the evaporation is slow, and requires constantly stirring to prevent burning. When it becomes of the consistence of honey, it is

poured into gourds, or calabashes, for sale. This hardens by age.

2. ALOE SPICATA. - Succotrine Aloes.

About twelve years ago Dr. Fothergill fent this plant to Jamaica for the botanic garden there; but by the removal of the garden to a distant part of the country, this and several other valuable plants were lost. Had it been propagated, it would have proved a valuable acquisition to the island. The gum may be prepared as above.

3. AMOMUM ZINZIBER. - Ginger.

There are two forts of ginger cultivated in Jamaica, viz. the white and the black.

The roots are perennial and digitated. Every fpring they put forth tender shoots, of which are made the finest preserves.

Black ginger has the most numerous and largest roots, and only requires to be scalded and dried. The white ginger must be scalded in water, and the skin scraped off; then carefully dried. This last bears the best price.

Ginger is reckoned to impoverish lands greatly. This, with the trouble and fluctua-

ting state of the markets, makes only a few people plant it in the mountains.

The virtues and uses of ginger are well known. In medicine it enters into many compositions, and merits still farther to be employed, as an useful succedaneum to the more costly spices. In Jamaica the common people employ it in baths and somentations, with good success, in complaints of the viscera, in pleurisies, and in obstinate and continued severs.

Besides the officinal ginger, there are several other species of ginger growing wild, differing in size, slowers, solidity and pungency of the roots, &c. viz.

- 1. Amomum Zerumbet Wild Ginger.
- 2. Costus Arabicus Great Wild Ginger.
- 3. Alpinia Racemosa Mountain Wild Ginger.

The roots of these are whiter, less pungent, and softer than ginger, and are often made into sweetmeats.

4. Amyris Balsamifera. - Rose Wood.

This is found on gravelly hills, and rifes to a confiderable height. The trunks are remarkable for having large protuberances on them. The leaves are laurel shaped. The similar blue flowers are on a branched spike. The berries are small and black.

Rose wood is an excellent timber: it is replete with a fragrant balsam or oil, and retains its flavour and solidity though exposed to the weather many years.

Perhaps, by subjecting this wood to distillation, a persume, equal to the oleum rhodii, may be obtained.

5. ANACARDIUM OCCIDENTALE. - Cashew Tree.

This beautiful and fhady tree grows to twenty or twenty-five feet high. It bloffoms early in the fpring, and continues to flower for feveral months. The flowers grow on a branched fpike: they are fmall, red, and fragrant.

It is fomewhat fingular that the nut or feed is first produced. It is of a kidney shape, and soon comes to its natural size; which so soon as it does, the cashew apple fills up in a few days, being attached to the cashew nut.

Cashew apples are red or white; when ripe they are soft, and their taste is agreeably rough and sweet. Stewed in syrup they may be kept many months; and when eaten with milk are highly restorative. When the apple is roasted gently gently and pressed, the juice, with that of lemons or limes, is made into punch.

Betwixt the external covering and the kernel there is a thick brown caustic oil. This is by some used to take off freckles; but it inflames so much, that the remedy is worse than the disease. It appears to be also volatile in its effects; for if cashew nuts are roasted in a close place, the operator's face will be swelled, inflamed, and covered with a rash or erysipelas.

Roafted cashew nuts are better than chesnuts; and when blanched in water, and freed from their covering, are as sweet as almonds, and are used like them for emulsions.

This tree is of speedy growth, as in one year, from the sowing, it blossoms and bears fruit. The tree lasts many years, and when old, yields a great quantity of transparent gum, in no way inferior to gum arabic.

6. Andropogon Litorale.

I saw this grass only on the sea shore, near St. Anne's Bay, Jamaica. It was sive seet high, and had jointed stalks and roots, like the dog grass of Britain.

A strong

A strong decoction of the roots has been fuccessfully employed in visceral obstructions, given at the rate of three pints a day; but in liver complaints it succeeds better, if accompanied by calomel in small doses.

All these grow wild in Jamaica, or are cultivated on account of their fruit.

The four fop is a large fruit, of a heart shape, pointed, and beset with spines. When pulled off before maturity, and boiled, it is served at table the same as pompions; and if roasted or baked, is similar to yams. When ripe it is soft, sweet, and detersive: hence good in severs where the mouth is surred.

The fweet fop is an agreeable fruit; but the custard apple is eaten only by a few.

The alligator apple grows in rivulets. The toot is spongy, and as light as cork: it makes excellent strops for razors.

The

The leaves of all finell ftrongly like favine, and both they and the fruits are anthelminthic.

8. ARACHIS HYPOGEA. - Ground Nut.

This is cultivated in gardens, and spreads on the ground. It has a yellow-pea blossom, and the pods are under the surface of the earth, containing two oblong seeds.

The toasted nuts are preferable to chesnuts. They yield by expression an oil as good as almonds; and when beaten in a wooden or marble mortar, and mixed with water, form an excellent emulsion, not inferior to that of almonds, cashews, or any other.

9. ARGEMONE MEXICANA. - Yellow Thiftle.

This is a common and troublefome weed. The flowers are yellow; the leaves and stems prickly; and, when wounded, a yellow juice runs out, like a solution of gum gamboge. The pods are prickly, and contain a number of small black seeds; a woman's thimbleful of which are emetic; in a lesser dose they are purgative. They are used in diarrheas and dysenteries.

Vol. VIII. PART III. Ff 10. ARIS-

10. Aristolochia triloba.

Both of these are called contrayerva, and the latter is in common use. It grows amongst the bushes: its flowers are large and mottled, and cannot fail to attract the notice of the most inattentive traveller.

The roots of this fecond species are long, equal, and as thick as a man's little singer: they have a strong scent, like the radix contrayerva of the shops.

The natives of Jamaica use a tea or decoction of these plants in colds and other sebrile complaints; but as the whole genus is acrid and stimulating, this often does mischies; especially where there is an inflammatory diathesis, or where proper evacuations have not been made.

These two are cultivated as articles of food.

The tap root is very large, and sends out a shoots or singers, which, when boiled or roasted, serve instead of bread. The parent root is boiled

boiled to feed swine. The roots yield a great deal of starch.

12. ARUM MACRORHIZON. - Cubefo Wyth.

This is a climber, and has large round leaves and long wythie roots, from which when cut a white milky refinous liquor runs out, of a ftrong turpentine fmell.

13. ARUM DIVARICATUM. — Parasitical Cocoes.

This grows in the boughs of the tallest trees; the leaves are like those of the cocoes.

The roots both of this and the last species are used in decoction, as sarsaparilla.

14. ARUM ARBORESCENS. - Dumb Cane.

This grows in moist and swampy lands, and rises to six or eight feet. Every part of it is acrid. The juice rubbed on the skin causes an intolerable itching. If eaten through ignorance or design, it irritates and even inslames the mouth and sauces, and renders the person speechless: hence the name.

A physician, in the reign of Charles the Second, wrote a treatise on the virtues of the dumb cane in dropsy. I have tried it in that Ff 2 disease,

disease, but could not get down a sufficient quantity to produce the proper effect, on account of its acrimony.

A negro woman, who had been long ailing, in a fit of despair, eat a good deal of the dumb cane, with a view to destroy herself. It excoriated her mouth and throat much, and she voided many worms, but recovered her health soon after.

15. ASCLEPIAS CURASSAVICA. — Bastard Ipecacuanha. — The Red Head.

This is a pretty plant, which grows wild in pastures. It rises to three feet; has green stems and lanceolated leaves. The flowers stand at top in a kind of umbel: they are red and yellow, and very beautiful.

This plant is milky, but not dangerous, like fome others of this genus. The juice of the leaves is often given to perfons afflicted with worms, from a tea-spoonful to an ounce, for a dose, on an empty stomach. In this way I can vouch for its powerful and salutary effect. When given in larger doses, it acts as a mild emetic or purgative; and in worm fevers also as a diaphoretic and diuretic. Thus, whilst it expels worms, it brings about a criss.

The

The roots are white and woody. When given in powder, as a vomit, they act as an emetic; but this is a dangerous practice.

16. BIXA ORELLANA. — Arnotta Bush, or Roucou of the Indians.

This is planted about inclosures, and sometimes rises to twenty feet. The trunks are brown and smooth. The bark is tough, and, by maceration, may be made into a strong hemp or flax.

The flowers are pale red, and very like those of the dog rose. The pods are oval, pointed, and prickly, containing a number of scarlet seeds.

When the pods are ripe they are gathered in baskets; and, when opened, the seeds are thrown into a tub of clean water. The water and seeds are well stirred, and the red adhering substance washed off the seeds; which last are thrown away. The turbid liquor is passed through a hair sieve, and evaporated in a pot over a slow fire to an extract, then made into rolls of a pound weight, which are dried in the shade, and then put up for use.

Arnotta fells at a high price; from fifteen to twenty shillings per pound. It is used as a dye; and in chocolate, to which it communi-

cates

cates a rich and agreeable flavour and taste as well as colour.

It has been found an useful medicine in nephritic and calculous cases. Half a drachm may be taken in a cup of chocolate twice or three times a day.

The Indians in Spanish America paint their bodies with arnotta.

17. Bromelia Ananas. — Pine Apple. ————— Pinguin. — Pinguins.

Pine apples are cultivated in all the West-India islands, and are raised in every hothouse in Britain. There are several varieties; but the sugar-loaf pine is the best.

Ripe pine apples are amongst the finest of our fruits in the West Indies, and are relished by all ranks of people, especially people sick of acute diseases, dysenteries, &c. They have a detersive quality, and are better sitted to cleanse the mouth and gums than any gargle whatever.

Besides being eaten raw, they are often candied with sugar, and sent home as presents. Pine apples are also made into tarts and pickles.

Pinguins are planted as fences. The fruit is as big as a plum. The juice is exceedingly deterfive.

deterfive, and is often employed to clean the mouth. Thin flices with fugar are frequently given to children for worms; but much of it excoriates the mouth and passages.

18. Bursera Gummifera. - Jamaica Birch.

This is frequent in woods, and grows speedily to a great height and thickness. The bark is brown, and very like the birch of Britain. The wood is soft and useless, except when pieces of the limbs are put into the ground as fences, when it grows readily, and becomes a durable barrier. It has yellow flowers, male and female on different trees. The fruit is a triangular capsule, which, when cut, discharges a clear balfam or turpentine.

On wounding the bark, a thick milky liquor is obtained, which foon concretes into a refin no way different from the gum elemi of the shops.

Dr. Browne, and after him Linnæus, has mistaken the bark of the roots for the simarouba; of which hereafter.

19. CAMOCLADIA PUBESCENS. — Yellow Mastic.

This is a fine tall timber tree, frequent in woodlands. The wood is yellow, hard, and takes a fine polish.

The whole of this genus is warm or peppery. The bark of the yellow mastic has an extraordinary taste, somewhat like ardent spirits, but more permanent, as, on chewing the smallest bit, one cannot get the taste out of the mouth for some hours.

The bark retains its pungency when dried, and perhaps may be found an useful medicine in lethargic and paralytic diseases, where stimulants are indicated.

20. CANELLA ALBA. - Wild Cinnamon.

This is a common tree in Jamaica, and grows to a great height. The leaves are oval, smooth, and shining: the flowers are small, red, and fragrant; they stand in form of an umbel, and are succeeded by black succulent berries, of the size of black currants. When ripe, they are sweet and aromatic: when gathered green, and dried, they are like black pepper, but hotter.

The

The bark is the canella of the shops. It enters into various officinal compositions, and is a warm, cordial, and aromatic medicine.

The habit and foliage of this tree are very like those of the true Winter's bark. Their fensible qualities too are nearly the same, and they appear to me to be species of the same genus.

21. CAPPARIS CYNOPHALLOPHORA.—The Bottle Cod Root.

This shrub is found in copies, and is disposed to run on bushes. It is remarkable for having large white slowers, whose stamina are of an extraordinary length. The pods are a foot long, and unequal. When ripe they open gradually, and shew the seeds in a fort of crimson bedding.

The root is large, yellow, and fleshy, and tastes strongly like horse raddish.

Dr. Canvane recommends it as a specific in dropsy. He orders a decoction of it; but an infusion is preferable, because boiling dissipates its virtues.

There are feveral other species of Capparis Vol. VIII. PART III. Gg in

[234]

in Jamaica, whose sensible qualities are the same as those of the mustard tribe.

22. CAPSICUM.

Capficum	annuum Cockfpur Pepper.
-	baccatum Cherry Pepper.
	groffum Gourd Pepper.
	frutescens Bird Pepper.
	(varietas.)-Ilen Pepper.
	galericulum Bonnet Pepper.

These, and some other varieties, are called Negro Peppers. The bird and hen peppers are indigenous; the others are cultivated in gardens; and all of them have the same sensible qualities, differing only in degrees of pungency. The bird pepper is the smallest, but hotter than any of the others.

All the capficums may be preferred in vinegar, and form the best of pickles.

When nearly ripe they become red; and if gathered at this time, dried, and powdered, make Cayenne pepper. Some mix common falt; but this is improper, as it disposes the whole to deliquesce, and darkens the colour.

Capficum has a warm and kindly effect on the

the stomach. It has all the virtues of the oriental spices, without producing those complaints of the head which they often occasion. In food it prevents statulency from vegetables; but the abuse of it occasions visceral obstructions, especially of the liver.

In dropfical complaints, or others where chalybeates are indicated, a minute portion of powdered capficum is an excellent addition.

In lethargic affections this warm and active stimulant might be of service. In tropical servers a coma and delirium are common attendants; and, in such cases, cataplasms of capsicum have a speedy and happy effect. They redden the parts, but seldom blister, unless kept on too long.

In ophthalmias, from relaxation of the membranes and coats of the eyes, the diluted juice of capficum is a fovereign remedy; and I have often witneffed its virtues in many obstinate cases of this fort.

In some parts of South America the Indians prick the loins and bellies of hectic patients with thorns dipped in the juice of capsicum.

It has been alledged, that capficum, applied to the loins, would occasion gonorrhoa. This

Gg 2 is

is contrary to experience, and too ridiculous an opinion to combat ferioufly.

23. CASSIA OCCIDENTALIS. - Pifs a Bed.

This common weed has a disagreeable smell, like the leaves of all green cassias. The flowers are yellow; the roots sleshy, and used in apercient and diuretic decoctions.

24. CASSIA FISTULA. - Cassia Tree.

This tree is cultivated in gardens and about fettlements. It rises to about thirty seet, and has long flower spikes, with yellow papilionaceous blossoms. The pods are about two feet long, and as thick as a man's singer: they are black, smooth, and shining. This is the cassia sistularis of the shops, and the same as that brought from the East Indies. The pods of the Cassia Javanica, or horse cassia, are very large, and the pulp inferior to the former, which enters into some officinal compositions.

25. CASSIA SENNA ITALICA.—The round-leaved Senna.

This grows on fand banks near the fea, particularly ticularly on the palifadoes, near Port Royal in Jamaica.

It rifes by herbaceous stems to two feet in height. From the axillæ at the top are sent forth stender spikes, with yellow blossoms. The pods and seeds are the same as those of the sena of the shops. I have dried the leaves, and used them in purging ptisans in the same proportion as those of the Alexandrian sena.

Specimens of this senna were presented to the Society of Arts; and although I received no marks of their approbation, it is with pleasure I observe they have offered a premium lately for raising the Alexandrian senna in the West Indies.

26. CASSIA ALATA. — Ringworm Bush.

This plant is annual. The ftem is woody, and rifes to five or fix feet. The leaves are winged, and look like those of walnuts. The flower spikes are simple; the blossoms large, yellow, and placed so closely as to form a cone. The pod is triangular, and four inches long: the seeds are numerous, and heart shaped.

Tetters or ringworms are frequent amongst the black people in Jamaica, and amongst the Spaniards Spaniards in America very inveterate. I have feen this complaint fo universal, that the habit was tainted; the skin looked leprous, and the unhappy patient had not a moment's ease from the intolerable itching or painful ulcers.

In the beginning a poultice of the flowers of this bush is of service; as are also sulphureous applications. But, in more advanced stages of the disease, mercurials externally, and the decoction of woods, give the only chance of a cure.

27. CASSIA CHAMÆCRISTA. — Cane Plant. — Senstive Plant.

This is frequently met with in cane-piece intervals. It is about three feet in height, and has a few branches, with numerous small pinnated leaves, which collapse immediately on being touched. The blossoms are yellow. The capfule is a flat pod, about an inch long, black, jointed, and somewhat hairy. The roots are woody, with many fibres.

In Guinea, and in the West Indies, the negroes are dexterous poisoners. The plants they employ for this purpose are chiefly the lactescent

ones, of the order Contortæ, viz. Echites suberecta, Cameraria, Plumeria, and Nerium. An antidote against these deleterious substances cannot be too much valued; and such an one is a decoction of the roots of this plant.

A handful of the washed roots being boiled in water from three pints to two, may be strained, sweetened, and used for common drink, at the rate of three quarts in twentyfour hours.

28. CINCHONA CARIBÆA. — Jesuit's Bark of Jamaica.

Having given an account of this tree in the Philosophical Transactions, (Vol. lxvii. page 504) with a figure, the reader is referred to that work. I may, however, add, that I have found trees in the parish of St. James, in Jamaica, fifty feet high, and proportionally thick. The wood is hard, clouded, and takes a fine polish. The bark of the large trunks is rough; the cuticle thick and inert; the inner bark thinner than that of the young trees, but more fibrous.

I have made use of this bark in all cases where the Peruvian bark was indicated, and with the greatest success.

Half

Half an ounce infused in a bottle of white wine, or spirits, affords an elegant and grateful bitter. In beginning Typhus I remove the sick into airy chambers, wash their hands and sace often in cold water, and direct them to chew a little of this bark with very happy effects.

29. CINCHONA TRIFLORA. - The Bath Bark.

This species of cinchona was discovered by Mr. Roberts, a clergyman in Jamaica. The leaves are very like those of the caribæa. At the axillæ come out three scarlet flowers. The pods are somewhat longer than those of the last mentioned species. The bark is of the colour of Peruvian bark. This tree grows only in the parish of Manchioneel, by rivers.

30. CINCHONA BRACHYCARPA.

Mr. Lindsay, surgeon, and an expert botanist, discovered this species in the parish of Westmoreland, Jamaica, in 1785. It has much the appearance of the following, but very sew slowers. It grew on the side of a steep hill.

Much

Much has been faid and written of late years on the Jefuit's bark. Sir Joseph Banks, many years ago, had an elegant plate engraven of the cinchona officinalis, which he distributed to his friends. It was by this figure that I was enabled to ascertain and settle the Jesuit's bark of Jamaica, as well as the other species I have mentioned.

Of these species, the cinchona Caribæa is the nearest to the officinal bark in virtue: it abates vomiting, and sits well on the stomach; whereas the other two species, like the St. Lucia bark, prove emetic in a small dose. They all, however, cure intermittents.

All these different species are in the possession of Sir Joseph Banks.

31. CISSAMPELOS PAREIRA. — Pareira Brava.

This is a flip which runs amongst the bushes and on fences. The leaves are round, soft, and downy, on which account it is called the velvet leaf.

It bears its flowers on a flender pendulous fpike: they are yellow and very small, and the male and female are on different vines. The Vol. VIII. Part III. Hh fruit

fruit is a foft, flat berry: it is of a red colour, and contains one flat feed curioufly notched like the wheel of a watch.

The roots are black, stringy, and as thick as farsaparilla, running superficially under the surface of the ground.

This root is agreeably aromatic and bitter, and is recommended by Geoffroy in nephritic diforders, in ulcers of the kidneys and bladder, in humoral afthmas, and in some species of jaundice.

The common people in Jamaica use a decoction of the roots for pains and weakness of the stomach proceeding from relaxation.

33. CITRUS MEDICA. — Limes. — Limonum. — Lemons.

The whole of the genus citrus are natives of Asia, and the southern parts of Europe, from whence they have been carried to and planted in the warmer parts of America and the sugar islands. At present they are so common as to be formed into hedges.

The juice of lemons and of limes is nearly alike, and their uses in medicine and drink well known. About fourteen years ago I wrote a

paper on the effects of lime juice combined with fea falt in various difeases in the torrid zone *. It is proper to observe, that in all the disorders there mentioned, a remitting fever either occasioned or accompanied them.

In that paper I have flightly mentioned diabetes; but later experience enables me to affert, that in this medicine I have found a specific for diabetes as well as for lienteria, both which diseases have often heretofore baffled the most skilful physicians.

Both these are cultivated in all the West-India islands, as well as in Spain and Portugal. These ascesscent fruits have long been esteemed in medicine, and need not here be insisted on. In the warm countries ulcers soon become very foul and offensive. I have long been of opinion

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that

^{*} Vide American Transactions, Vol. II. and London Medical Journal, Vol. VIII. page 100.

that the habit has nothing to do in many such cases, but that both the ulcer and the somes of it are merely local. I have applied the pulp of roasted oranges to the sores as a poultice, and observed always that in twenty-sour hours the sector of such ulcers was corrected and removed, and that the ulcers soon were disposed to heal. The same application was continued till a cure was completed.

34. CITRUS DECUMANA. - Shaddock.

This fruit was so called from a Captain Shaddock, who sirst brought it from the East Indies to Barbadoes.

Shaddocks are a most beautiful fruit, about five times as large as oranges, and shaped like a pear. They have a most agreeably sweet and bitter taste, and are much esteemed in warm countries.

35. CITRUS DECUMANA, (Varietas.)—The Forbidden Fruit:

This is smaller than the shaddock, and of a round sigure. However beautiful to the eye, they are in general so bitter and sour as seldom to be eatable.

36. CITRUS BERGAMOT.

This is frequent in orchards: it is less than an orange, and has a fine smell.

37. CITRUS CITRULLUS. - Citron.

This fruit is about double the fize of a lemon, but nearly of the fame shape. The juice is acid; the skin remarkably thick.

All the species of citron agree in some particulars. The leaves and flowers are nearly alike, and on their surface all of them have a volatile fluid, or oil, lodged in small round cells, visible to the naked eye. This essential oil is easily obtained by distillation.

The juice of limes, lemons, and oranges, is used in shrub, orangeat, and punch, and enters into many compositions in pharmacy and confectionary.

The rinds or skins of citrons, limes, and oranges, make elegant preserves, either in syrup or candied with sugar.

38. CLINOPODIUM RUGOSUM. — Wild Batchelor's Button.

This plant is annual, herbaccous, and rifes to three or four feet. The leaves are large, rough,

rough, and ferrated; the flowers small, and the seed vessels connected in a globular or button-like form.

The leaves of this, beaten and applied to old and obstinate ulcers, have a very good effect. The buttons, when rubbed betwixt the fingers, emit a most agreeable fragrance, somewhat like a mixture of the oils of rosemary, lavender, rhodium, and ambergris. As the plant is so common in all waste lands, large quantities might easily be gathered, and this valuable persume, or oil, obtained by distillation. The dried pods retain their flavour a considerable time, and might be sent home in tin canisters or lead cases to the mother country.

40. COFFEA ARABICA. - Coffee Tree.

It is about fixty years fince coffee was introduced into Jamaica from the Levant. It is now in general cultivation amongst even the meanest of the people. It flowers twice a year. The blossoms are white and sweet, like jasmine, and last a considerable time. These slowers, with the green fruit, and red ripe berries, on the same twigs, make a pleasing and beautiful contrast.

The

[247]

The fruit is a berry, of the fize and exact figure of the red cherry. The pulp is foft and fweet, and no doubt might be converted to wine; or, by distillation, to brandy. The beans are two in each berry, which are well known.

Coffee is an article of diet, and feldom preferibed in medicine: but I have known it have good effects in the moist or humoral asthma, and to give speedy relief in headachs from gout and other nervous affections. It is said to prevent sleep; but this happens from any tepid liquors drank late in the evening or at night.

Coffee, with a good deal of milk, is used twice a day by most families in Jamaica.

41. Convolvulus Brasiliensis. — Sea-side Scammony.

This plant grows near the fea shore. The leaves are broad and shining; the slowers large and pale red.

The roots are thicker than a quill, and run many yards superficially in fandy places. The whole plant is milky; and if this milk was collected, a resin, like scammony, might be obtained. At present this root is employed

as a draftic purge, in dropfy, by the common people.

The Aleppo feammony might easily be cultivated in Jamaica, and become an useful and profitable article. It is growing luxuriantly in His Majesty's garden at Kew, and in several other gardens about London.

41. Convolvulus BATATAS .- Sweet Potatoes.

This slip is planted for food, and grows so fast as to be sit to dig up in six weeks or two months. For this reason, new settlers generally plant this as the readiest provision.

The roots have much the appearance of the common potatoe, but are much larger. These, roasted or boiled, are sweet, but not so farinaceous as the other potatoe, nor do they yield so much starch by one half: however, the sweet potatoe is good substantial food, and ferves instead of bread, which cannot always be had.

There is a vulgar opinion in Jamaica, that the common or English potatoe becomes sweet, and degenerates into this slip. The first is totally a mistake; the latter impossible.

42. CRESCENTIA CUJETE. - Calabash.

This useful tree is planted about settlements. The slowers and fruit grow from the body or large limbs of the tree. The fruit, or calabash, is generally large. Some, when hollowed, will contain a gallon of water. The shell serves for utensils for the negroes, as bowls, cups, and spoons.

The contents are white, pretty firm, and contain a number of feeds. The juice of calabash, in the quantity of four ounces, is given as a purge in all cases where the patient has received a bruise about the trunk; and a syrup of the same, with the addition of lime juice, a little nitre, and paregoric elixir, is by some highly extolled in coughs and consumptions.

Small calabashes roasted, and the pulp spread on cloth, make a good poultice for bruises and inflammations.

A fmaller calabash grows wild, but is only a mere variety of the other.

43. CROTON ELEUTHERIA *.

This tree is common near the fea shore, and sifes to about twenty feet. The leaves are from

* Clutia Eluteria, Linu. Vol. VIII. PART III. I i two two to three inches long, and of a proportional breadth. On the upper fide they are waved, and of a rufty colour; on the under fide they are ribbed, and have a fine gloffy or filvery appearance.

From the axillæ they have numerous small spikes, with a great quantity of white, small, and fragrant flowers. The capsule is tricoccous, like other crotons.

The bark is the fame as the cascarilla and eleutheria of the shops. Medical writers have supposed these to be distinct barks, and they are sold in the shops as different productions; but, when strictly examined, they prove to be one and the same bark.

Linnæus's croton cascarilla is the wild rosemary shrub of Jamaica, the bark of which has none of the sensible qualities of cascarilla.

44. DAPHNE LAGETTO. — Alligator Bark, or Lace Bark Tree.

Sir Hans Sloane has figured a sprig of this tree, but did not see the flowers or seeds. Dr. Browne, in his Natural History of Jamaica, is equally at a loss with respect to it; and botanists were unacquainted with this plant till the year 1777, when I brought complete specimens

of

of it from Jamaica, and Sir Joseph Banks, Dr. Solander, and myself, settled it as a species of Daphne.

The tree grows on the high rocky hills to twenty feet high. The trunks are straight; the wood is soft; the bark is thick, and may be separated into twenty or thirty lamina, white and fine, like gauze. Of this, caps, ruffles, and even whole suits of ladies' clothes, have been made.

It has the fensible qualities of mezereon, but in a greater degree. A drachm of it to two pounds of sarsaparilla decoction is useful in confirmed lues, chronic rheumatisms, and pains of the bones from lues or the yaws.

45.	Dioscorea	ALATA Negro Yam.
		Bulbifera White Yam.
		Sativa. — Wild Yam.
		Triphylla Yampee.

The two first species are cultivated in provifion grounds; the slips are climbers, and surnished with poles, like hops. They are planted in the spring, and are ripe about Christmas. The roots are very large; some from thirty to forty pounds weight. They will keep for several months, and are in daily use as food. Yams,

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roafted

roasted or boiled, eat like potatoes, but are rather of a coarser texture. They are dressed in various forms, being boiled in soups or broth, &c., made into pudding, or roasted in the fire. They yield also a considerable quantity of starch.

The wild yam is a native of the woods in Jamaica. The stem is angulated, and finely sterrated. If any one lays hold of this vine, it cuts the hands like a knife. The roots are flat, digitated, and large; they are yellow coloured, and very bitter: they purge people unaccustomed to eat them; but are the chief support of the runaway negroes who abscond from the plantations.

The yampee, till of late years, was little known to the white inhabitants. The leaf is different from the others; the roots are about fix inches long, and two inches in diameter: there are about twelve of fuch to one flip or vine. The Maroons, or mountain negroes, plant them, and bring them down to the low lands. They keep a few weeks. The yampee, boiled or roafted, is a most delicious root, and far preferable to potatees.

46. Dolichos Pruriens. - Cowitch.

This slip runs wild amongst the bushes in many parts of Jamaica, and now and then is cultivated in gardens.

It is a climber; has flender stalks; the leaves trifolated; the slowers small and papilionaceous. The pods are about four inches long, round, and as thick as a man's singer, containing a few hard oblong seeds.

The outfide of the pods is thickly fet with fiff brown hairs or briftles, which, when applied to the fkin, occasion a most intolerable

itching.

The ripe pods, when dipped in fyrup, are fcraped with a knife, and then thrown away. When the fyrup, with these seta, becomes as thick as honey, it is sit to use. It acts mechanically as an anthelminthic; occasions no uneasines in the first passages, which are defended by mucus; and may be taken safely from a teaspoonful to a table-spoonful once a day.

47. EPIDENDRUM VANILLA.

This plant is carefully cultivated in the Spanish West Indies, where it is a native. It also grows wild in the mountains of Jamaica. Dr.

Swartz,

Swartz, a learned Swedish botanist, found it there about three years ago.

The pod is a valuable perfume, and fetches a great price. It merits, therefore, the attention of the people, and their representatives in affembly, that it may be cultivated and fent home as an article of commerce.

48. Epidendrum Claviculatum. — Green Wythe.

This plant is found on gravelly and rocky lands. It runs or creeps on the ground, taking root here and there in its progress. The stem is as thick as a man's singer, round, green, and succulent: it is jointed at every twelve or sourteen inches, and is several yards long, without leaves. The slowers are large and yellow; the pods two inches long.

On viewing the expressed juice with a glass, or the naked eye, we find it full of long spiculæ or hairs. Dr. Drummond, a learned and ingenious physician and botanist in Westmoreland, Jamaica, who first shewed me this plant, assured me, that he had often given a table-spoonful of the juice as a safe and effectual vermisuge; and that in some species of dropsy it promotes a flow of urine, and cures the disease. The juice

[255]

juice is in great esteem, amongst the negroes, for the cure of gonorrhæa and lues venerea.

49. EUPATORIUM DALEA.

This is frequent in the mountains of Jamaica. It is woody and perennial, and about four feet high. The flowers are yellow; the feeds downy.

The withered ears or leaves, just dried, have a most sweet smell, nearly equal to the vanilla; and we find them often amongst the Spanish cigaroes, as a persume, instead of vanilla.

50. FEVILLEA SCANDENS. - Cacoons.

This is common in all waste lands and by the skirts of the woods. It is a climbing vine, which runs on trees and bushes for a great way, covering them like ivy.

It has its male flowers on one vine, and the female on another. The bloffoms are small and yellow. The fruit is a round calabash, containing about twelve large flat seeds or nuts. When the fruit is ripe, the seeds fall out at the bottom from a round circular ring or trap door.

The cacoon tastes very bitter, and is oily.
The common people employ them as antidotes
against

against vegetable and fish poison, as well as in pains and weakness of the stomach.

The feeds, when beaten in a wooden mortar, and boiled long with water, yield an oil or fat, as white and hard as tallow; and they are frequently used for this purpose at the Musquito Shore and Honduras, where candles are made of them.

51. GEOFFR ÆA INERMIS .- Cabbage Bark Tree.

In the fixty-seventh volume of the Philosophical Transactions I have given a botanical and medical account of this tree, to which the Royal Society have added an elegant engraving.

The anthelminthic properties of this bark are pretty generally known; and it is an article of materia medica in the Edinburgh Dispensatory, as well as in some foreign Dispensatories.

Let me in this place remark, that physicians expect too much from anthelminthics. The common symptoms of worms are often delufory; for the same symptoms attend many fevers. When, therefore, the case is doubtful, I always join the cinchona officinalis or Caribæa with the cabbage bark.

Worms, expelled in the end of acute difeases, are, in general, a fatal symptom; and no worm medicine should then be given, unless the bark is given at the same time.

52. ABRUS PRECATORIUS. - The Bead Vine.

This beautiful plant runs on bushes or fences. It has numerous small and pinnated leaves. The flowers are papilionaceous, and pale red; the pods short and rounded, containing three or four red shining small peas, with a black speck at the end.

The leaves and stalks are sweet, and often made into teas or decoctions, to which is added a little lime juice. This drink is useful in coughs, colds, and pleurisies, &c.

The feeds are exceedingly hard, and are emetic: they are never eaten or prescribed. They are common in shell shops and shell works, and are worn as beads by the negroes in Jamaica.

53. GOUANA DOMINGENSIS. - Chaw Stick.

This vine runs wild in fences and in copfes. The stalks are woody, flexible, and of the fize of one's finger: they run to a confiderable length, and continue of the same thickness. The leaves are oval, and serrated; the slowers Vol. VIII. Part III. Kk small

fmall and white; the capfules fmall, flat, and white.

Pieces of chaw stick are made into tooth brushes, and, while they serve to clean the teeth, are antiseptic by their bitterness.

This wythe is chewed, and the juice swallowed as an agreeable stomachic; and is useful for promoting an appetite, or removing pains in the stomach from relaxation of that viscus.

What is often called a pain in the stomach is an affection of the liver, which should carefully be distinguished, as in this case all tonics or bitters do mischief. If the liver is diseased, we have a sovereign remedy in caloniel. One grain for six nights running is generally sufficient.

54. GUAJACUM OFFICINALE. - Lignum Vita.

This is a native of the West Indies, and grows slowly to a middling fize and thickness. Its shady ever-green foliage, its numerous azure flowers, and flat yellow pods, make a pleasing contrast.

The trunks are commonly crooked; the bark is furrowed, and tears of the gum exude. All the parts of this tree are acrid and difagreeable to the tafte; and as they con-

tain

tain more or less resin, are purgative, diaphoretic, or diuretic.

Befides the tears found on the trunk, a gum is obtained in the following manner: — The trunk and larger limbs being fawn into billets of about three feet long, an auger hole is bored lengthways in each, and one end of the billet fo placed on a fire, that a calabash may receive the melted resin which runs through the hole as the wood burns.

Gum guiacum may be obtained in fmall quantities by boiling chips, or fawings, of the wood in water and common falt. The refin fwims at the top, and may be skimmed off.

It may also be got by means of ardent spirits, in the way Jalap and Peruvian bark are treated; but this mode is expensive and tedious.

The venereal disease makes terrible havock amongst the negroes in Jamaica, and shews itself in all its hideous forms. This is owing to their ignorance or neglect. Amongst this class of mankind it is too common to stop virulent gonorrheeas with astringent gums, resins, or barks, so that the master or overseer knows nothing of their situation till the spongy bones of the nose, the palate, or the throat, are greatly affected; or their limbs distorted by

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nocturnal pains, pains of the bones, nodes, and carious ulcers.

The yaws, though a very different disease from the lues venerea, often produces the same direful effects in the limbs, nose, and throat: happily, however, these are curable by mercurial alteratives and diaphoretic decoctions.

Of all the preparations of mercury, the corrofive fublimate appears to me to be the best for curing such inveterate disorders, especially when accompanied with such medicines as promote its natural tendency to the skin. Of this sort is guiacum and sarsaparilla. I have sound the following formula the best:

Gum guiacum, ten drachms.

Virginia snake root, three drachns,
Pimento, two drachms.

Opium, one drachm.

Corrosive sublimate, half a drachm.

Proof spirits, two pounds.

To be mixed and digested for three days, and then strained.

Two tea-spoonfuls of this tincture given in half a pint of sarsaparilla decoction twice a day, will, in general, remove every symptom of lues or yaws in four or sive weeks.

55. Hæmatoxylum Campechianum.—Log-wood.

Dr. Barham introduced the feeds into Jamaica from Honduras about the year 1715. It is at this time too common, as it has over-run large tracts of land, and is very difficult to root out.

This is generally planted for hedges, and it makes a beautiful and strong fence against cattle or stock. If pruned from the lower branches, it grows to a sizeable tree, and, when old, the wood is as good as that from Honduras.

The trunks and branches have long, fharp fpines; the leaves are heart fhaped; the flowers, on a fpike, are yellow, tipped with crimfon, smell sweet, and are exceedingly beautiful. The pod is flat, and contains two or three smooth long seeds.

Logwood trees are cut up into billets or junks, the bark and white fap of which are chipped off, and the red part, or heart, fent to England for fale.

As a dye, and a medicine, it is well known:

56. HIBISCUS ESCULENTUS. - Okra.

This is cultivated in gardens and inclosures as an article of food. It rifes to five or fix feet; has broad leaves, and yellow large flowers. The pod or okra is from two to fix inches long, and one inch diameter. When ripe, it opens longitudinally in five different places, and discharges a number of heart-shaped seeds.

The whole of this plant, like others of the columnifera, is mucilaginous, especially the pods. These are gathered green, cut into pieces, dried, and sent home as presents, or are boiled in broths or soups for food. It is the chief ingredient in the celebrated pepper pot of the West Indies, which is no other than a rich ollá: the other articles are either slesh meat, or dried sish and capsicum. This dish is very palatable and nourishing.

As a medicine okra is employed in all cases where emollients and lubricants are indicated.

57. JATROPHA JANIPHA.—Sweet Cassada. ————— Manihot.— Bitter Cassada.

Both these are cultivated as articles of food. It is difficult to distinguish the bitter from the sweet cassada by the roots; but it will be best

to avoid those of the cassada that bears flowers, as it is the bitter which is poisonous when raw.

The root of bitter cassada has no fibrous or woody filaments in the heart of the root, and neither boils nor roasts soft. The sweet cassada has all the opposite qualities, and is daily served up at table as bread.

Cassada bread is made of both the bitter and fweet, thus:—The roots are washed and scraped clean; then grated into a tub or trough: after this put into a hair bag and strongly pressed, and the meal or farina dried in a hot stone bason over the fire: lastly, made into cakes. These make most excellent puddings, equal to millet.

The scrapings of fresh bitter cassada are successfully applied to ill-disposed ulcers.

Cassada roots yield a great quantity of starch, which the Brazilians export in little lumps, under the name of Tapioca.

The first grows wild; the second is planted round negro gardens; and the third is cultivated as an ornamental shrub.

A decoction of the leaves of the two first is often used with advantage in spasmodic bellyach, attended with vomiting. It sits easier on the stomach than any thing else, and seldom fails to bring about a discharge by stool.

The feeds of all of them are drastic purgatives and emetics. They yield, by decoction, an oil of the same uses and virtues as the oleum ricini; of which hereaster.

59. LAETIA APETALA. - Gum Wood.

This tree is common in woodlands and copfes: it rifes to a confiderable height and thickness. The trunks are smooth and white; the leaves are three inches long, a little serrated, and somewhat hairy. The stamina are yellow, without petals; the fruit is as large as a plum, and, when ripe, opens and shews a number of small seeds in a reddish pulp.

Pieces of the trunk, or branches, suspended in the heat of the sun, discharge a clear turpentine, or balsam, which concretes into a white resin, and which seems to be the same as gum sandarach.

Of this we make pounce: and it appears to me that this turpentine or gum might be useful in medicine, like others of the same nature. 60. LANTANA CAMARA. Wild Sage.

Aculeata. Wild Sage.

Involucrata.—Sea-fide Sage.

The first grows wild amongst the bushes, and is remarkable for the beauty of its slowers, which are yellow, tinged with red.

The fecond has fmall white flowers, and dark-coloured rough leaves: it also grows wild.

The third species is found near the sea. It is a low plant; has small ash-coloured leaves, and a most agreeable smell.

The leaves of all these lantanas, and particularly of the sea-side sage, is used by the black people in teas, for colds, rheums, and weakness of the stomach. They are also used with alum in gargles.

61. LAURUS CINNAMOMUM. — Cinnamon Tree of Ceylon.

This noble plant, with other valuable ones, was taken in a French ship, and Admiral Rodney, ever attentive to the prosperity of Jamaica, presented them to the Assembly of that island.

Vol. VIII, PART III, L1 One

One of the trees was planted in the botanic garden in St. Thomas in the East; the other by Hinton East, Esq. in his noble garden at the foot of the blue mountains. From these parent trees some hundreds of young trees are already produced, from layers and cuttings, and dispersed to different parts of the country, in all which it thrives luxuriantly, with little trouble: we may, therefore, hope it will soon be a valuable addition to our commerce.

The smallest bit of the bark is quite a cordial. The cinnamon we have from Holland is often inert, and gives room to suspect that it has been subjected to a slight process in distillation.

62. LAURUS CAMPHORA.

This tree is another of the captured plants given to the inhabitants of Jamaica. It is common enough in greenhouses in Britain.

If cultivated with care, it will also be an acquisition. Camphor, though solid, is the effential oil of this tree, and is obtained by distillation in the East Indies.

63. LAURUS SASSAFRAS.

This is a native of North America, and grows luxuriantly in Mr. East's garden. When propagated, it will also be an article of trade from Jamaica.

The roots, and their bark, are used in medicine, and the slowers are made into tea, in America, as the rasping of the wood is with us. The sassant roots and bark are an excellent ingredient in the decoction of woods.

64. LAURUS PERSEA. - Alligator Pear.

This tree has neither the habit nor fenfible qualities of the genus Laurus: the flowers, however, have all the generic characters of it.

The alligator pear tree is cultivated univerfally by all ranks of people. It runs speedily to twenty-five or thirty feet in height. The leaves are long, oval, and pointed; the flowers yellow and small. The fruit is pear shaped, and from one to two pounds in weight.

On removing a green skin or covering, we come to a yellow, butyraceous substance, and in the heart find a large round seed or stone. It is unequal in the surface, and exceedingly hard and woody.

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This

This fruit is ripe in August and September, and constitutes one of the most agreeable articles of diet, for six or eight weeks, to the negroes. These pears, with a little salt and a plantain or two, afford a hearty meal. They are also served up at the tables of white people as choice fruit. When the pear is ripe, the yellow or eatable substance is sirmer than butter, and tastes somewhat like butter or marrow: hence it is called by some the vegetable marrow. But however excellent this fruit is when ripe, it is very dangerous when pulled and eaten before maturity. I have repeatedly known it to produce sever and dysentery, which were removed with difficulty.

The leaves of this tree and those of the bead vine or wild liquorice * are made into pectoral decoctions by the common people.

The large stone is used for marking linen. The cloth is tied or held over the stone, and the letters pricked out by a needle through the cloth and into the seed. The stain is a reddish brown, which never washes out.

^{*} Abrus precatorius.

65. MALVACEÆ (Ordo naturalis.)

Under this title we may comprehend the whole tribe of plants in the fixteenth class of Linnæus, and the natural order columniferæ. All of them are mucilaginous, saponaceous, and emollient, and may safely be employed where mucilaginous and emollient medicines are indicated.

A decoction of the common broomweed * in the West Indies, or of the various species of Sida, may properly be substituted in the room of marshmallow roots.

Many of them yield gums, which are of a fimilar nature to that of the cashew. Some are used as food, and are highly restorative. We spoke of this above, under the name of Hibiscus esculentus, Okra.

66. MARANTA ARUNDINACEA. — Indian Arrow Root. — The Starch Plant.

This is cultivated in gardens and in provifion grounds. It rifes to two feet, has broad pointed leaves, small white slowers, and one seed.

^{*} Sida alnifolia and rhombifolia.

The roots, when a year old, are dug up, well washed in water, and then beaten in large deep wooden mortars to a pulp. This is thrown into a large tub of clean water. The whole is then well flirred, and the fibrous part wrung out by the hands, and thrown away. The milky liquor being paffed through a hair fieve, or coarse cloth, is suffered to settle, and the clear water is drained off. At the bottom of the vessel is a white mass, which is again mixed with clean water and drained: lastly, the mass is dried on sheets in the sun, and is pure ffarch.

. A decoction of the fresh roots makes an excellent ptisan in acute diseases.

67: MIMOSA TORTUOSA. - Poponax Buft. ---- Nilotica.
---- Senegal. | Gum-arabic Trees.

The first of these has probably been imported, and at prefent grows too abundantly, as it is a thorny troubleiome bush.

The others have been lately introduced from Guinea. They are trees of about twenty feet high. I faw them in the garden of Dr. Paterfon, at Green Island, Jamaica. The Nilotica, still the still

on being cut a little, yielded a good deal of transparent gum.

These several species have small pinnated leaves, which are nearly as sensible, on being touched, as those of the mimosa pudica. The slowers are yellow buttons, which, when rubbed, are very fragrant. All of them afford gum arabic in lesser or greater quantities, and more or less transparent.

68. MIRABILIS JALAPA. - Four o'Clocks.

This is frequently met with in the gardens of the curious in Great Britain. It grows wild in Jamaica, and is a troublesome weed. Some have red flowers; some yellow; and others, flowers finely variegated.

It has a large tap root, which, when cut across, is not unlike that of Jalap; but when dried is white, light, and spongy. It requires to be given in a great quantity to operate as a purge, and is probably the mechoacanna of the ancients, but not the jalap, which belongs to the genus Convolvulus.

- 69. Musa Paradisiaca. Plantain Tree.
 - ---- Sapientum. Banana.
 - ----- Troglodytarum. Wild Plantain.

The plantain tree is cultivated on a very extensive scale in Jamaica. The fruit is the chief support of the inhabitants.

The leaves are fix or eight feet long, and from two to three feet broad. The flowers are from a spatha, and are covered with purple deciduous calyces. The fruit or plantains are about a foot long, round, and a little bent. When ripe, they grow yellow, soft, and sweet. The feeds are larger than mustard, dark coloured, and numerous: they never vegetate; the tree is propagated by shoots.

Plantains are cut when full grown, but before they are ripe. The green skin is pulled off, and the heart is roasted in a clear fire for a few minutes, and frequently turned: it is then scraped, and served up as bread. Boiled plantains are not so palatable.

The banana tree bears a smaller fruit than the plantain. It is never eaten green; but when ripe it is very agreeable, either eaten raw, or fried in slices as fritters.

Plantains

Plantains and bananas are eaten by all ranks of people in Jamaica; and but for plantains the island would scarce be habitable, as no species of provision could supply their place. Even flour, or bread itself, would be less agreeable, and less able to support the laborious negro, so as to enable him to do his business or to keep in health.

Plantains also fatten horses, cattle, swine, dogs, fowls, and other domestic animals.

The wild plantain has no fruit eatable. The leaves of all the species are nearly alike; and as they are smooth and soft, they are employed as dressings after blisters.

The water from the foft trunk is aftringent, and employed by fome to check diarrhœas.

Every other part of the tree is useful in different parts of rural economy.

70. MYRTUS PIMENTO. — Allspice, Jamaica Pepper, or Pimento Tree.

This is a native of Jamaica, and grows in all the woodlands on the north side.

Pimento walks are upon a large scale, since they contain at times some hundred acres of ground. This is one of the staple articles of Jamaica.

Vol. VIII. PART III. Mm This

This tree has bay leaves; the flower refembles that of the elder. The fruit is a black berry as big as a black currant when ripe, and contains two gray smooth seeds.

As foon as the berries are of the proper fize, and just before they begin to be ripe, a number of hands are employed to gather them. They are then dried on platforms or sheets, and asterwards put up in bags of one hundred weight for the European market.

Pimento possesses the flavour and qualities of all the eastern spices: it enters into many of the officinal preparations, and is the chief ingredient in the marischal hair powder.

71. PASSIFLORA HEXANGULARIS.—Grandilla.
———— Maliformis.—Water Lemon.
————— Laurifolia.—Sweet Calabash.

All these species are cultivated in Jamaica. They are all eatable; but the pulp of the ripe granadilla is very delicious. Their taste is sweet and subacid, and relished by almost every body, particularly by the sick in acute continued severs.

The thick rind of unripe granadilla is often made into pickles, or preserved with sugar as sweetmeats.

72. PASSIFLORA RUBRA. — The Dutchman's Laudanum.

This is a strong woody vine that mounts the tallest trees, and sends forth vast numbers of crimson slowers. The fruit is black, and of the size of a cherry.

A Dutch physician, who lived in Hanover parish, performed some remarkable cures in severs by the use of the slowers and berries; but opium has superior virtues; and the other is now laid aside as an anodyne of less advantage.

73. PICRANIA AMARA. - Bitter Wood.

This is a tall and beautiful timber tree which is common in the woods of Jamaica. Sir Jofeph Banks had sprigs of the flowers and seeds in spirits from me, and we found it a new genus belonging to the *Pentandria Monogynia* of Linnæus. The name is expressive of its sensible qualities.

Every part of this tree is intenfely bitter; and even after the tree has been laid for floors many years, whoever rubs or scrapes the wood feels a great degree of bitterness in their mouth

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or throat. Cabinet work made of this wood is very useful, as no insect will live near it.

This tree has a great affinity to the Quassia amara of Linnæus; in lieu of which it is used as an antiseptic in putrid severs. When used, less of it will do than of the Quassia amara of Surinam*.

74. PIPER AMAI.AGO.—Black Pepper of Jamaica.
———— Inæquale. — Long Pepper of Ditto.

These, and some other species, are indigenous, and known by the names of Joint Wood, or Peppery Elders.

The first bears a small spike, on which are attached a number of small seeds of the fize of

* In 1772 Dr. Wright discovered the tree which yields the simarouba of the shops, and the year following sent a botanical account of it to the late Professor Hope at Edinburgh, under the title of Quassia Simarouba. At the same time he sent specimens of it to the late Dr. Fothergill, who transmitted them to the celebrated Linnæus at Upsal. The latter communicated this discovery to Professor Murray at Gottingen, who has mentioned it in the third volume of his Apparatus Med. page 458.

We are happy to learn from Dr. Wright, that he means foon to publish a description of this tree, accompanied with engravings.

mustard.

mustard. The whole of the plant has the exact taste of the East-India black pepper.

The long-pepper bush grows taller than the amalago. The leaves are broad, smooth, and shining. The fruit is similar to the long pepper of the shops, but smaller.

The common people in Jamaica feason their messes with the black pepper.

To preferve both, the fruit may be flightly fealded when green, then dried, and wrapped in paper. Perhaps hereafter they may be deemed worthy of attention.

75. PORTLANDIA GRANDIFLORA.

Dr. Browne has described this plant, and given a good figure of it. It has frequently flowered in the King's garden at Kew, and in Dr. Pitcairn's at Islington.

The external bark is remarkably rough, furrowed, and thick: it has no tafte. The inner bark is very thin, and of a dark brown colour. Its tafte is bitter and aftringent, and its virtues are the same as those of the Jesuit's bark. Infused in spirits, or wine, with a little orange peel, it makes an excellent stomachic tincture.

76. RICINUS COMMUNIS. — Palma Christi. — Castor-oil Nut Tree.

This tree is of speedy growth, as in one year it arrives at its full height, which seldom exceeds twenty feet. The trunk is subligneous; the pith is large; the leaves broad and palmated; the slower spike is simple, and thickly fet with yellow blossoms in the shape of a cone; the capsules are triangular and prickly, containing three smooth gray mottled seeds.

When the bunches begin to turn black, they are gathered, dried in the fun, and the feeds picked out. They are afterwards put up for use as wanted, or for exportation.

Castor oil is obtained either by expression or by decoction. The first method is practised in England; the latter in Jamaica. It is common first to parch the nuts or seeds in an iron pot over the fire; but this gives the oil an empyreumatic taste, smell, and colour: and it is best prepared in this manner:—

A large iron pot or boiler is first prepared, and half filled with water. The nuts are then beaten in parcels in deep wooden mortars, and, after

after a quantity is beaten, it is thrown into the iron vessel. The fire is then lighted, and the liquor is gently boiled for two hours, and kept constantly stirred. About this time the oil begins to separate, and swims on the top, mixed with a white froth, and is skimmed off till no more rises. The skimmings are heated in a small iron pot, and strained through a cloth. When cold, it is put up in jars or bottles for use.

Caftor oil, thus made, is clear and well flavoured, and, if put into proper bottles, will keep fweet for years.

The expressed castor oil soon turns rancid, because the mucilaginous and acrid parts of the nut are squeezed out with the oil. On this account I give the presence to well-prepared oil by decoction.

An English gallon of the feeds yield about two pounds of oil, which is a great proportion.

Before the disturbances in America, the planters imported train oil for lamps and other purposes about sugar works. It is now found that the castor oil can be procured as cheap as the fish oil of America: it burns clearer, and has not any offensive smell. This oil, too, is sit for

all the purposes of the painter, or for the apothecary in ointments and plasters.

As a medicine, it purges without stimulus, and is so mild as to be given to infants soon after birth, to purge off the meconium. All oils are noxious to insects, but the castor oil kills and expels them. It is generally given as a purge after using the cabbage bark some days.

In conflipation and belly-ach this oil is used with remarkable success. It sits well on the stomach, allays the spass, and brings about a plentiful evacuation by stool, especially if at the same time somentations, or the warm bath, are used.

Belly-ach is at present less frequent in Jamaica than formerly, owing to several causes. The inhabitants, in general, live better, and drink better liquors; but the excessive drinking of new rum still makes it frequent amongst soldiers, sailors, and the lower order of white people. I have known it happen too from visceral obstructions after intermittents, or marsh fevers, in Jamaica.

77. SACCHARUM OFFICINALE. — Sugar Cane.

This is a native of Africa, the East Indies, and of Brazil; from whence it was introduced into our West-India islands soon after they were settled.

The fugar cane is the glory and the pride of those islands. It amply rewards the industrious planter, enriches the British merchant, gives bread to thousands of manufacturers and seamen, and brings an immense revenue to the Crown.

It is not meant here to fay any thing of the process for making sugar. This has been done by several hands, and particularly by Colonel Martin, of Antigua, and by Dr. Grainger, late of St. Christopher's, in his elegant poem of the Sugar Cane.

Sugar, formerly a luxury, is now become one of the necessaries of life. In crop time every negro on the plantations, and every animal, even the dogs, grow fat. This sufficiently points out the nourishing and healthy qualities of sugar. It has been alledged that the eating of sugar spoils the colour of, and corrupts, the teeth: this, however, proves to be a mistake, for no people on the earth have siner teeth than the negroes in Jamaica.

Dr. Alston, formerly professor of botany and materia medica at Edinburgh, endeavoured to obviate this vulgar opinion: he had a fine set of teeth, which he ascribed solely to his eating great quantities of sugar.

In medicine I need fay little of the use of sugar. Externally it is often useful: mixed with the pulp of roasted oranges*, and applied to putrid or ill-disposed ulcers, it proves a powerful corrector.

78. Sesamum indicum. - Vanglot.

The oil feed, or vanglo plant, was first introduced into Jamaica by the Jews as an article of food. It is cultivated in gardens and provision grounds.

The plant is annual and herbaceous, rifing to about three feet. The flowers are numerous, white, and belong to the class *Didynamia* of Linnæus. The pods are about the thickness of one's little finger, and contain a great number of small white seeds.

In diet the negroes boil this in foups and broths, instead of slesh meat. The Jews, besides this, make cakes of it to eat as bread. The expressed oil is as clear and sweet as oil of almonds, and keeps better. The Behen's oil, so useful for the finest varnish in coach painting, is probably no other than that of the vanglo. The proportion of oil in this seed is great, nine pounds yielding two pounds of oil.

79. SMILAX SARSAPARILLA.—Sarsaparilla Root.

Several species of smilax have roots nearly similar; but that from Honduras and Campechy is the best.

This species has stems of the thickness of a man's singer: they are jointed, triangular, and beset with crooked spines. The leaves are alternate; smooth and shining on the upper side; on the other side are three nerves, or costæ, with sundry small crooked spines. The slower is yellow, mixed with red. The fruit is a black berry, containing several brown seeds.

Sarfaparilla delights in low, moist grounds, and near the banks of rivers. The roots run superficially under the surface of the ground. The gatherers have only to loosen the soil a little, and to draw out the long sibres with a wooden hook. In this manner they proceed till the whole root is got out. It is then cleared of the mud, dried, and made into bundles.

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The fensible qualities of sarsaparilla are mucilaginous and farinaceous, with a slight degree of acrimony. The latter, however, is so slight as not to be perceived by many; and I am apt to believe that its medicinal powers may fairly be ascribed to its demulcent and farinaceous qualities.

Since the publication of Sir William Fordyce's paper on farfaparilla in the Medical Obfervations and Inquiries, Volume the First, farfaparilla has been in more general use than formerly. The planters in Jamaica supply their estates with great quantities of it; and its exhibition has been attended with very happy confequences in the yaws and in venereal affections, as nodes, tophi, and exostosis, pains of the bones, and carious or cancerous ulcers.

Sir William Fordyce feems to think farsaparilla a specific in all stages of lues; but from an attentive and careful observation of its effects in some thousands of cases, I must declare I could place no dependence on sarsaparilla alone. But if mercury had formerly been tried, or was used along with sarsaparilla, a speedy cure was soon effected. Where the patients had been reduced by pain, disorder, and mercury, I prescribed a decoction of sarsaparilla,

and a table-spoonful of the powder of the same, twice a day, with the greatest success, in the most deplorable cases of lues, ill-cured yaws, and carious or ill-disposed sores, or cancers.

There are only a few farfaparilla plants in Jamaica; but it might be cultivated there, and fave the planter an immense expence.

We have also the China root growing wild in Jamaica; but it is seldom used in practice.

80. Spigelia Anthelminthica. — Worm Grass.

Worm grass grows wild in some parts of Jamaica, but is commonly planted in gardens. It grows sometimes to two feet in height. Dr. Browne gives a very just figure of this plant.

The flowers are finall and white; the capfules are round, and contain a great quantity of finall feeds.

Worm grass has long been in repute as a vermifuge, and is in daily use as such in Jamaica. Its action is similar to that of the spigelia marilandica. Most vegetable anthelminthics have less or more of a narcotic effect; and this genus, in a full dose, brightens the coats of the eyes and distends their vessels: it also occasions sleep, and hence is useful in worm fever.

After

After its use for some days, a dose of castor oil is generally ordered. Let me here again be permitted to repeat the uncertainty of the signs of worms, especially in sever, and to caution the public against depending on anthelminthics alone in their cure. The Jesuit's bark should be given in all doubtful cases, or where worm medicines fail in their effects.

81. SWIETENIA MAHAGONI. — The Makogony Tree of Jamaica.

This tree grows to a most majestic size and height. It is of slow growth and great hardness. The wood is well known in Britain.

Mahogony was formerly very plentiful in Jamaica, but is now only in the high hills, and difficult of access.

The trunk is generally straight; the bark rough, scaly, and brown; that on the boughs and twigs is gray and smoother. The bark of these last, dried, is very like the Peruvian bark in colour as well as in taste, but has more bitterness.

Mahogony bark, infused in wine or spirits, makes an elegant tincture, which resembles the tincture of the best Jesuit's bark, for which it is often substituted; and I have seen the powder

powder administered in intermittents with success when the Peruvian bark could not be had.

82. TAMARINDUS INDICA. — The Tamarind Tree.

This beautiful, shady, and useful tree is cultivated all over the West Indies. It rises to thirty or forty feet high. The trunk is brown, scaly, and of a good size. The wood is brown, very hard, and takes a fine polish.

The branches are spreading: the leaves small, numerous, and pinnated. The flowers yellow, and beautifully streaked with crimson; they continue during the whole of June and July, and then drop off.

The fruit is a broad, ash-coloured pod. The external covering is thin and brittle. This being removed, we find several hard seeds, like beans, enveloped in a soft brown pulp, which is secured by sundry longitudinal woody sibres. This fruit is ripe about Easter, when it is picked off the trees, and put up for use.

Tamarinds are prepared or cured two ways. The common way is to throw hot fugar from the boilers on the ripe pulp: but a better me-

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thod is to put alternate layers of tamarinds and powdered fugar in a stone jar. By this means the tamarinds preserve their colour, and taste more agreeably. The seeds, too, of tamarinds, thus prepared, will vegetate easily; and this method conveys a hint for sending succulent berries and seeds in tamarinds from abroad.

Preserved tamarinds are kept in most houses in Jamaica, either as a sweetmeat, or for occafional use as a medicine. They are cooling,
laxative, and antiseptic: hence useful in acute
and putrid diseases.

Dr. Zimmerman prescribes tamarinds in putrid dysentery. I commonly add a portion of Epsom salts till stools are procured; afterwards, tamarinds alone till the disorder is cured.

In obstinate dysenteries I have found five grains of calomel act like a charm, whether the disorder was kept up by bilious obstructions or worms.

83. THEOBROMA CACAO. - Chocolate Tree.

In all the French and Spanish islands and settlements, in the warmer parts of America; the chocolate tree is carefully cultivated. This

was formerly the case also in Jamaica; but at present we have only a few straggling trees left; as monuments of our indolence and bad policy.

This tree delights in shady places and deep valleys. It is seldom above twenty feet high. The leaves are oblong, large, and pointed. The slowers spring from the trunk and large branches; they are small, and pale red. The pods are oval and pointed. The seeds, or nuts, are numerous, and curiously stowed in a white pithy substance.

The cocoa nuts being gently parched in an iron pot over the fire, the external covering feparates easily. The kernel is levigated on a smooth stone; a little arnotto is added, and, with a few drops of water, is reduced to a mass, and formed into rolls of one pound each. This simple preparation is the most natural, and the best. It is in daily use in most families in Jamaica, and seems well adapted for rearing of children.

84. VERBENA JAMAICENSIS. - Vervain.

This is a common weed about all cultivated places. The leaves are ferrated, and pretty broad; the flowers blue.

Vol. VIII. PART III. Oo A tea,

A tea, or a strong decoction, of vervain is in frequent use as a cooling laxative; and a tea-cupful of the expressed juice of bruised vervain leaves is a smart purge.

35. ZANTHOXYLUM CLAVA HERCULIS.

The first of these is the prickly yellow wood, and is a losty and good timber tree. The second is called the tooth-ach tree. It is frequent in gravelly places near the sea.

The berries of both are fomewhat peppery, and a bit of the bark from the roots is a powerful fialogogue, and gives that fort of fensation as if the mouth was full of blood: hence it is so ferviceable in tooth-ach.

86. ZEA MAYS. - Indian Corn, or Mayz.

Indian corn, or mayz, is cultivated in America as an article of food; as it is also in Jamaica. The mayz of North America is white, state, sta

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in each. For the most part, there are two or three such heads on every stalk. The increase

is prodigious.

Guinea corn, or Indian millet, is also cultivated to a great extent in Jamaica. These corns do not constitute a great part of the support of the inhabitants of Jamaica, but are chiesly used to rear poultry, to feed horses, and to fatten pigs, goats, or sheep.

PALME.

Of this natural order we have feveral in Jamaica; fome of which are indigenous; others have been introduced.

87. Cocos Nucifera. — Cocoa Nuts. — Guineensis. — Prickly Pole.

The cocoa-nut tree was originally brought from the Spanish main to Jamaica, and is now planted about settlements as an useful and ornamental tree. It bears fruit about ten or twelve years after it is planted. The fruit is large, triangular, about twelve inches long, and nine inches in diameter. After removing the external covering and a fibrous substance, we find a large, round, hard nut, in which is

Oo 2 contained

contained about eight ounces of sweetish waver, surrounded by a white and firm kernel.

The rib of the leaves or pinnæ is smooth and flexible, and is used in the heart of bougies. The leaves and their stems are useful for thatching houses, or making baskets. The curious reticular cloth, which covers the tender foot stalks, serves for strainers. A liquor drawn from the trunk, fermented with rice, makes arrack. The fibrous fubftance covering the nut, fpun and twifted, makes strong and durable ropes. The shell is converted into drinking cups, fugar dishes, &c. The water is pleasant, and used to quench thirst. Before the fruit is quite ripe the nut is foft, and may be eaten with a fpoon; but when ripe it is hard. Like other nuts, it is apt to give a pain in the stomach. A fort of tarts, or cheesecakes, is made from the dry nut kernels, rasped or pared down. This may also be used for emulfions, instead of almonds; and, by expression or decoction, these kernels yield a considerable quantity of oil.

The prickly pole is a native of low and upland valleys: it rifes to about thirty feet. The trunk and leaves are befet with spines in form of needles. The fruit is of the size of hiccory

nuts, and very hard. The black people boil the nuts in their messes; and if boiled in water, a yellow thick oil, or butter, is obtained.

88. Cocos BUTYRACEA. - The Mackaw Tree.

This was originally brought from Guinea by the negroes. The trunk is straight, and guarded by numerous long spines, or needles. The fruit is triangular, yellow, and as big as a plum. The nut, or kernel, by decoction, yields the oleum palmæ of the shops.

The fruit of this and the former ferve to feed swine, and are greedily eaten by the wild hog, of which there are still many in the interior parts of the island.

89. ARECA OLERACEA - Cabbage Tree.

This is a native of the woods. The trunk is straight, and marked with rings at the veftigiæ of the foot stalks of the leaves. These leaves spread out at the summit in form of an umbrella, and are about three yards in length, and pinnated. The foot stalks at the bottom are broad, and form a green trunk above the woody or true summit. As the lower leaves drop, the broad part of the foot stalks forms a

hollow

hollow trough, or cradle for negro children; and when cut up makes excellent splints for fractures. On the inner side of every tender foot stalk are tender pellicles, which, when dried, make a writing paper. The heart is made into pickles, or, when boiled, is served up at table. The trunks serve as gutterings; the pith makes a fort of sago; and the nuts yield oil by decoction.

Of all trees in the universe, this is the most beautiful, and perhaps the tallest. I have seen one an hundred and seventy seet high, and have heard of others still taller.

90. The Sago Palm.

This valuable palm tree was prefented to the island by Admiral Rodney, with many other valuable plants captured in a French ship by Captain Marshall.

This plant was but young when I faw it; but as it was healthy, and carefully attended to in Mr. East's garden, it is hoped it will thrive, and in time be propagated by the feeds.

In Amboyna, and feveral other parts of the East Indies, sago is made from this tree.

The

The pith is beaten into a stiff paste; then granulated through a sieve in the same manner as the grains of gunpowder are formed.

The fago powder fold in the shops is merely the starch of potatoes; and the tapioca of the Brazils is the starch of cassada.

See the articles Jatropha and Maranta.

91. PHOENIX DACTYLIFERA. - Date Tree.

This tree is not indigenous, but was introduced foon after the conquest of the island by the Spaniards. There are, however, but few of them in Jamaica at this time. The fruit is served up as a desert; and the kernels yield an oil, or butter, similar to the palm oil from Guinea.

There are feveral other palms growing wild in Jamaica, viz. the mountain thatch, the palmeto thatch, the palmeto royal, &c. The fruit is either a drupa, or a berry, and all of them have one or more nuts, which contain a kernel that yields oil. This circumftance, with the great refemblance in their habit, makes them truly a natural class, or family.

II. Account of a Case, in which a considerable Portion of the lower faw Bone was removed; to which are added some Remarks on the Effests produced by Matter formed in the Socket of a Tooth, and confined there. By Mr. Jofeph Brandish, Member of the Corporation of Surgeons of London, and Surgeon at Alcester in Warwickshire. Communicated in a Letter to Dr. Johnstone, Physician at Worcester; and by bim to Dr. Simmons.

N the 14th of February, 1785, I was defired to fee Henry Haines, of this town, a boy about five years of age. His friends told me he had had the jaundice and a bad fever, but had recovered. He complained then of a fore mouth, which they called a canker, and they had made use of several things without effect. Upon examining his mouth, I found an ulcer on the gum of the lower jaw of the left fide, opposite the third of the dentes molares, which tooth was loofe. His breath was very fœtid from the discharge of the ulcer, and he had some fever and colliquative night fweats. I ordered him an infusion of bark, to be taken three or four times a day, and to wash his mouth very frequently with a gargle composed of honey of roses and tincture of myrrh,

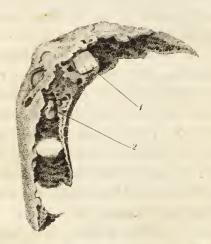
and defired them after each time of using the gargle to apply a doffil of lint, dipped in tincture of myrrh, to the ulcer.

In about a fortnight the tooth fell out; the ulcer continued spreading, and in a short time two or three more teeth became loofe. The discharge was so great, that they were obliged to change the pillow he lay on three or four times a week. He was at times in great pain, which, added to the constant drivelling from his mouth, prevented his fleeping, and lowered him very much. I now touched the edges of the ulcer with vitriolic acid, lowered with fyrup of mulberries, for feveral mornings; notwithstanding which, it still continued spreading, and the alveoli (from the gums being corroded) became bare. I own I was now at a loss what to do, as nothing feemed to be of any fervice: however, I ordered him bark in substance, in large quantities, and to continue the use of the gargle and tincture of myrrh.

The boy in a fhort time after this was much mended in his health, and in about three months a separation had evidently taken place in the jaw bone, and a small fore burst on the outfide, below the condyle of the jaw, under the ear, which discharged considerably. This VOL. VIII. PART-III.

Pp I dreffed

I dreffed very superficially with Turner's cerate. He took the bark at this time twice or thrice a day; till being tired of it, we left it quite off. He then lived on a milk diet, and used the tincture of myrrh only. The bone was near five months before it became quite loose, and I then took it out altogether, as represented in the plate *. The fore on the out-



fide immediately healed, and his mouth, by using the gargle before mentioned, very foon

In the engraving, figure 1 refers to a tooth; and figure 3 to a tooth not yet emerged from the alveolus.

got well, and has continued perfectly found ever fince. The boy is now quite well, and

not the least disfigured.

This case, I think, clearly proves that difeases may exist similar to those caused by transplanting teeth, mentioned in Mr. Hunter's Treatise on the Venereal Disease, without any venereal taint, as he justly observes; and; in fact, without any transplantation of teeth at all; but, in my opinion, from matter formed in the focket of the tooth; and confined there. This, I think, will appear tolerably clearly from the following cases: - Soon after Henry Haines got well, a child, of about the fame age, was brought to me with a fmall ulcer on the gum of the lower jaw. The tooth opposite to the ulcer being loofe, I took it out, and thought that matter followed, but was not quite certain whether it came from the focket or the ulcer: however that may be, it had in some degree destroyed the bone, as it was feveral months getting well. He lost three teeth, and some exfoliations came off from the jaw bone. He took the bark, and used the gargle before mentioned:

I have lately been applied to (fince I have read Mr. Hunter's cases) to see another child,

Pp2

about

about four years old, who, as it was believed, had likewise a canker on the gum of the lower jaw. In this instance also I found a small ulcer on the edge of the gum; the tooth opposite was fast, but from the resemblance this case had to the other, I immediately drew the tooth, and a small quantity of matter issued. I ordered the part to be washed with a little tincture of myrrh, and it healed without any farther assistance.

In the case of transplanted teeth, matter seems to be formed in the socket from the irritation caused in fixing the tooth; but the cause of the evil in these children I shall leave to the determination of others, and hope these hints may be of service to other practitioners in similar cases.

Alcester, June 30th, 1787.

III. Additional Remarks on the supposed Influence of the Moon in Fevers. Communicated in a Letter to Dr. Simmons by Robert Jackson, M. D. Physician at Stockton.

To the paper on the influence of the moon in fevers, or rather in answer to the letter of Dr. Lind, inserted in the second part of

the Medical Journal*, allow me, Sir, to add a few remarks. From Dr. Lind's inaugural differtation, which I read when but a young man, I must acknowledge it was that I first received a hint of the moon's influence on the relapse of the fevers of India: and an opportunity offering to me early in a different part of the world, I was happy to be able, not only to verify what he had taken notice of, but I hope I have had the good fortune to extend the observation farther; and the evidence I have produced in support of it, to me at least, seems to rest on no precarious sooting.

Dr. Lind, who had the merit of bringing the knowledge of the fact to Europe, feems now to have changed his opinion with regard to the cause of it; and I cannot help thinking he has changed it without sufficient reason. I would contend with no man about a word; and whether we suppose the increase of severs, observed to happen about the time of new and full moon, owing to the immediate influence of the moon, or to some other cause connected with it, to me is persectly indifferent. I would only wish it to be known that what I have observed in the several countries in which I have lived, will not

fusier me to allow the cause to be merely local, or folely owing to the immediate effect of tides overflowing the low grounds. As it is truth I feek, not controverfy, I will, indeed, own, that at Savanna la Mar, in Jamaica, which you know is fituated near the fea, the connexion of the moon with fevers is more remarkable than in any other part of the world where I have been; yet I must at the same time add, that the rife of the tide there scarcely ever amounts to eighteen inches. That a tide fo fcanty, on a fandy beach, is likely to produce effects fo confiderable, few, I presume, will be inclined to believe; but lest any one should, what I can with confidence affirm of the same connexion being found, though in a lefs remarkable degree, in the interior parts of America, within a hundred miles of which no tide ever reached, puts the question beyond dispute.

That the connexion is not local, or confined to the countries within the tropics, not only what I have observed in the higher latitudes of America; but to omit others of my own, an observation that I have lately met with, in a Treatise on the Intermitting Fevers of the Netherlands, by Dr. Grainger, affords the most unequivocal proof. Dr. Grainger, describing the

the progress of the intermitting fever in the year 1748, has the following remark:—
"Neque silentio prætereundum, quod die, quo
so sold defecit, viginti recens corripiebantur*."
This is but a bare fact; but it is a fact of much importance in the present question. Whoever is curious may look into the book. The sickness began on the 9th of July, at what distance from the full moon will require no great trouble to find out.

It is almost unnecessary to fay any thing with regard to Dr. Lind's reasoning about the immediate effect of tides. That a high tide leaves behind it what proves a fource of future difeafe I willingly allow; but that the high tide of today can be the cause of fever to-morrow, or even of next day; is so contrary to experience. that I can by no means affent to it. I have frequently had the opportunity of feeing healthy men brought to unhealthy fituations, and I have constantly observed some time intervene before the appearance of disease. As the state of the febrile cause was more or less concentrated, or as the body was more or lefs predifposed, the distance of time was greater or less; but in no one instance, unless perhaps in some few cases

of relapse, have I ever found the attack of fever inftantaneous.

Stockton, July 31, 1787.

IV. Case of a Rupture of the Tendo Achillis.

Communicated in a Letter to Dr. Simmons by

Mr. John Rodbard, Surgeon at Ipswich.

BOUT five years fince, stepping across a A kennel, my foot was placed too short upon a stone to bear my weight without slipping. Fearing I should fall, I excrted my whole strength to prevent it, and ruptured the tendo Achillis about three inches above its infertion into the os calcis. In the course of my practice I had met with three fimilar cases, and treated them according to the directions of the late Professor Monro, keeping the foot constantly extended, and the patient confined, until the parts were again united; and I found when they began to walk that it was with great difficulty and pain, and that a confiderable time elapted before they could get the heel low enough to do it with any degree of comfort, especially up hill. Indeed I have always observed

observed that such patients walk up an ascent with great trouble, which induced me to try if nature would not furnish renovating matter, callus, or whatever name may be given it, to fill up the space without extending the foot, and if by that means I might not be freed from the pain and difficulty of getting the heel to the ground, which my patients had complained of fo much. The experiment fucceeded to my wish; I kept my foot in its natural position, followed my bufiness, walked and rode confiderably every day, and took care only to give the ancle joint as little motion as possible till I found a perfect union of the tendon. I can now walk or run up an afcent, or up ftairs, without pain, and use this limb as well as the other. The leg is wasted considerably, but the thigh is equally fleshy as the other. I have fince met with another case, similar to mine, which was treated in the same manner with equal success, and in which I only kept a flight bandage round the ancle and foot, moistened with Goulard's vegeto-mineral water.

Ipfwich,
August 1, 1787.

V. An Account of a Peculiarity of Vision in a Girl at East Dereham in Norfolk. Communicated in a Letter to Dr. Simmons by Mr. J. S. Webster, Surgeon at East Dereham.

the following account of a remarkable defect of fight, which (with your approbation) I wish to see inserted in the London Medical Journal. — I think it right, however, first to observe to you, that my appointment of surgeon to the House of Industry, in which the girl, who is the subject of the case, is at present maintained, has afforded me frequent opportunities of examining into the particulars attending her defect of fight; and as in all my inquiries I have been upon my guard against deception, so likewise I doubt not but you will give me credit when I affure you I am as unwilling to deceive as to be deceived.

Helen Bunnett, or, as fhe is commonly called, the owl-eyed girl, is thirteen years old, of a fair complexion, with brown hair, and has all her life enjoyed a good state of health. She was born in a workhouse belonging to East Dereham, in the county of Norfolk; but is now supported in a House of Industry belong-

ing

ing to the hundreds of Milford and Launditch, in the same county.

This girl has from her infancy laboured under a peculiarity of vision. What particularly strikes one's attention, on her entering a room in the day time, is, her looking towards the ground, and her eyes appearing, as it were, sunk in her head; so much so, that the whole ball of the eye seems lost within its orbit, and of course the eyelid so covers it, that you would at first imagine the humours of the eye had escaped from their coats.

No appearance of disease is perceptible in the coats of the eye. The choroid is of a whitish or light gray colour. The iris is peculiarly persect. The pupils are entirely black; and the appearance of each eye is the same.

I first put her faculty of vision to the test by exhibiting large objects before her eyes, such as a watch, a broad button, the key of a door, &c. These she certainly was able to distinguish, though with difficulty; and I observed that she is very near sighted.

I next offered to her bottles filled with medicines of different colours, fuch as blue vitriolic water, vegeto-mineral water, and others; but in attempting to diffinguish these she, in gene-

Qq2

ral, failed. I then prefented to her view small objects, such as a fixpence, a shilling, pins, &c.; but these she could not discover at all.

Upon clofing the windows, and darkening the room fuddenly, I had my attention fixed upon her eyes, which inftantly dilated, and the pupils became as perfect, and as large in proportion, as in any human body whatever; on the contrary, upon opening the windows as fuddenly as I before had closed them, the pupils became instantly contracted, and the balls of the eyes appeared, as it were, funk. I then closed her eyelids, and rubbed them frequently, but without observing any appearance of dilatation in the eyes. Having now again darkened the room to much that I could not myself distinguish objects, I had in readiness the fame bottles of medicines as before, and likewise some pieces of cloth of different colours that I had offered to her when the windows were not closed, and which she had then not been able to diffinguish: but upon my again offering the same to her in the darkened room, I was agreeably furprifed to find that she could tell me the colours of the different fluids in the bottles, as well as the quantities therein contained, and also the various colours of the cloths,

cloths, excepting of those which we may term mixed cloths; and perhaps in these she failed not from a want of perception, but from not being sufficiently practised in the distinctions of complicated colours. I likewise took a pin, and having dropped it upon the ground, at a considerable distance from that part of the room where she stook, changed places with her, and desired her to look for the pin, which she very soon found. All the time the room remained darkened her eyes were fully dilated, and continued equally so, neither contracting nor increasing in their dilatation.

The expression of owl-eyed girl, which I have made use of, is not a term 'given to her by me, but is a distinction she goes by among the paupers in general in the house where she now is.

I lately asked her the following questions, which I shall give you, with her answers, as I minuted them upon the spot:

Q. "How is your eyefight when in the

A. "I cannot then fee in the leaft.

Q. " Are your eyes ever painful to you?

A. "They are very painful in fummer and hot weather.

Q. "In what direction do you look when you wish to distinguish any thing?

A. "From the corners of my eyes, as one crofs-eyed."

She has informed me likewise, that she can distinguish objects as well by moonlight, or in the twilight, as in the dark.

East Dereham, August 12, 1787

CATALOGUE OF BOOKS.

near Tewkesbury; with Thoughts on the Use and Diseases of the Lymphatic Glands. By James Johnstone, M. D. Physician to the General Infirmary, Worcester; Fellow of the Royal Medical Society, Edinburgh; of the Philosophical Societies of Manchester and Bath, and corresponding Member of the Medical Society, London. 8vo. Worcester, 1787.

2. Observations on the Principles of the old System of Physic, exhibiting a Compend of the new Doctrine: The whole containing a new Account of the State of Medicine from the present Times, backwards, to the Restoration of the Grecian Learning in the western Parts of Europe. By a Gentleman conversant in the Subject. 8vo. Murray, London, 1787.

3. Observations upon the new Opinions of John Hunter, in his late Treatise on the Venereal Disease. By fesse Foot, Surgeon. Part the Third. 8vo. Becket, London, 1787.

4. Strictures in Vindication of some of the Doctrines misrepresented by Mr. Foot, in his two Pamphlets, entitled, Observations upon the new Opinions of John Hunter, in his late Treatise on the Venereal Disease. By T. Brand. 4to. Nicol, London, 1787.

5. A Review of Jesse Foot's Observations on the new Opinions of John Hunter, in his late Treatise on the Venereal Disease. By Charles-Brandon Trye. Svo. Murray, London, 1787.

6. An Effay on Sea Bathing, and the internal Use of Sea Water. By Richard Kentish, M. D. F. A. S. Edinb. &c. 8vo. Murray, London, 1,87.

7. An Essay on the Method of studying Natural History: Being an Oration delivered to the Societas Naturæ Studiosorum at Edinburgh in the Year 1782. By Richard Kentish, M. D. 8vo. Elmsley, London, 1787.

8. A fhort Effay on the Propagation and Difpersion of Animals and Vegetables; being chiefly intended as an Answer to a Letter lately published, and supposed to be written by a Gentleman of Exeter, in favour of equivocal Generation. 12mo. Wilkie, London, 1787.

9. Prospectus of a System of Anatomy; illustrated with above two hundred and forty Copper Plates, collected from the most celebrated Authors in Europe. By Andrew Bell, F. S. A. S. Folio. London, 1787.

planations, and an Abridgement of the Practice of Midwifery; with a View to illustrate a Treatise on that Subject, and a Collection of Cases. By William Smellie, M. D. A new Edition, carefully corrected and revised, with Notes and Illustrations, adapted to the present improved Method of Practice. By A. Hamilton, M. D. F. R. S. Edin. and Professor of Midwifery in the University of Edinburgh. 8vo. Elliot, London, 1787.

II. Select Cases in the different Species of Infanity, Lunacy, or Madness; with the Modes of Practice as adopted in the Treatment of each. By William Perfect, M.D. 8vo. Murray, London, 1787.

of Mercury in the Cure of obstinate Dysenteries. By Thomas Houlston, M. D. late Senior Physician to the Liverpool Infirmary, and Honorary Member of the Literary and Philosophical Society of Manchester, and of the Physical Society of Edinburgh. A new Edition, with Additions, Amendments, and an Appendix. 8vo. Elliot, Edinburgh, 1787.

the Mangel Wurzel, or Root of Scarcity. Translated from the French of the Abbé de Commerell. 8vo. Dilly, London, 1787.

14. A concife Account of a new chemical Medicine, entitled Spiritus Æthereus Anody-. nus, or Anodyne Æthereal Spirit; containing a Relation of its very extraordinary Efficacy in a Variety of Complaints of the most obstinate and alarming Nature, particularly the Hydrothorax, or Dropfy of the Breaft, and other Species of Dropfy: Also of its specific Virtue in the Gout and many rheumatic Affections; in hysterical, hypochondriacal, and various other nervous Complaints, especially those of the epileptic Kinds; in Asthmas, and all Coughs unattended with Inflammation. With a Word or two, by way of Postscript, to Dr. James-Vol. VIII. PART III. Rr

Mackittrick Adair, late of Antigua. By William Tickell. 8vo. Bath. 1787.

15. The Families of Plants, with their natural Characters, according to the Number, Figure, Situation, and Proportion of all the Parts of Fructification. Translated from the last Edition (as published by Dr. Reichard) of the Genera Plantarum, and of the Mantissæ Plantarum of the elder Linneus; and from the Supplementum Plantarum of the younger Linneus; with all the new Families of Plants from Thunberg and l'Heritier. To which is added an accented Catalogue of the Names of Plants, with the Adjectives applied to them, and other botanic Terms, for the Purpose of teaching their right Pronunciation. By a Botanical Society at Lichfield. 2 Vols. 8vo. Lichfield, 1787.

16. Reports of the Humane Society, instituted in the Year 1774, for the Recovery of Persons apparently drowned. For the Years 1785 and 1786. 8vo. *Dodsley*, London, 1787.

17. Differtatio Medica Inauguralis de Corporum humanorum temperamentis, morbifque nonnullis quibus horum quidque maxime pendeat. Auctore Joanne Ainslie, Scoto. 8vo. Edin. 1787.

18. Differtatio Medica Inauguralis de Diarrahea. Auctore Campbel Betham, Scoto. 8vo. Edin. 1787.

19. Differtatio Medica Inauguralis de Asthmate periodico. Auctore Andr. Carrick, Bri-

tanno. 8vo. Edin. 1787.

20. Tentamen physiologico-medicum inaugurale de Secretione uterina, vel fluxu qui vulgo menstruus dicitur. Auctore Joanne Craven, Hiberno. 8vo. Edin. 1787.

21. Tentamen Medicum Inaugurale de Infania. Auctore Francisco Duncan, Scoto. 8vo.

Edin. 1787.

22. Tentamen Medicum Inaugurale de ista Herniæ uterinæ Specie quæ Ketroversio Uteri vulgo dicitur. Auctore Thoma Gill, Anglo. 8vo. Edin. 1787.

23. Differtatio Medica Inauguralis de Rabie Canina. Auctore Jacobo M'Ilwaine, Hiberno.

8vo. Edin. 1787.

24. Tentamen Medicum Inaugurale de Febre puerperarum. Auctore Alexandro Jackson, Hiberno. 8vo. Edin. 1787.

25. Differtatio Medica Inauguralis de Pneumonia. Auctore *Carolo Kerr*, Britanno. 8vo. Edin. 1787. 26. Tentamen Medicum Inaugurale quædam complectens de Morbis ex graviditate pendentibus. Auctore Gulielmo Leeky, Hiberno. 8vo. Edin. 1787.

27. Tractatus Inauguralis de Febre remittente Marilandica. Auctore Daniel Moores, reipublicæ Marilandicæ Cive. 8vo. Edin. 1787.

28. Tentamen Medicum Inaugurale quædam complectens de Typho. Auctore Thoma Renwick. 8vo. Edin. 1787.

29. Dissertatio Medica Inauguralis de Leucorrhœa. Auctore Joanne Simpson, Hiberno. 8vo. Edin. 1787.

30. Differtatio Medica Inauguralis de Medicina Sectæ Methodicæ veteris. Auctore Thoma Smith, Dunelmenfi. 8vo. Edin. 1787.

31. Differtatio Medica Inauguralis de Apoplexia. Auctore Carolo Stewart, Britamo. 8vo. Edip. 1787.

32. Differtatio Medica Inauguralis de Cynanche Maligna. Auctore Roberto Watker, Virginiensi. 8vo. Edin. 1787.

33. Differtatio Medica Inauguralis de Rachitide. Auctore Joanne-Watson Sproule, Hiberno. 8vo. Edin. 1787.

34. Josephi Emmanuel de Davalos, Limani apud Peruvianos, Specimen Academicum de morbis

morbis Limæ graffantibus, ipforumque Therapeia. 8vo. Monfpelii, 1787.

35. Dissertatio Medica de morbis epidemicis. Auctore Joanne-Bened. Zandyck, M. D. 4to. Douay, 1786.

36. Fundamenta Botanica, five Philosophiæ Botanicæ explicatio a *Domenico Cirillo*, M. D. 8vo. Neapoli, 1786.

37. Johannis Meursii de Puerperio Syntagma; cum Historia monstrosæ Partium genitalium Conformationis in Adulescente, Animadversionibus illustrata, Edidit Joh. Georg Frid. Franzius. 8vo. Lipsiæ, 1785.

38. De Sanguine et de Sanguineis Concretionibus per Anatomen indagatis, et pro Causis Morborum habitis, Quæstiones Medicæ. Auctore Josepho Pasta, Bergomate, in Patria Protophysico, Nosocomii majoris Medico. 8vo. Bergoma, 1786.

39. Joannis Brugnoni, Chir. Colleg. Direct. Reg. Schol. veter. de Testium in Fœtu positu; de eorum in Scrotum descensu; de tunicarum, quibus hi continentur, numero et origine Disfertatio. 4to. August. Taurin. 1786.

40. Francisci-Henrici Birnstiel, M. D. Civitatis Bruchsaliensis atque in eadem Copiarum militarium, Nosocomii F. Misericordiæ ad Sanc-

tum

tum Lazarum, Orphanotrophii et Sophronifterii, et Principatus Spirenfis Cis-rhenani, Phyfici ac Medici, de Dyfenteria Liber, fistens, præter completam Dyfenteriarum in Annis 1778, 1779, et 1780, epidemicarum Historiam, hujus Morbi fingularem Naturam, Caufam, et Hippocraticam medendi Methodum, unà cum perbrevi morborum intercurrentium recensione. 8vo. Manheim, 1786.

41. De Medicis veterum Hebræorum eorumque Methodo fanandi Morbos pauca disserit Jo. Henr. Lautenschlager. 4to. Schleiz, 1786.

42. Histoire d'une Symphyseotomie, pratiquée avec Succés pour la mere et pour l'Enfant, le 23 Janvier, 1786; par M. Verdier du Clos, Docteur en Medecine de l'Université de Nancy, Correspondant de la Société Royale de Medecine de Paris, &c. 8vo. Mans, 1787.

The subject of this history was a woman of low stature, and twenty-nine years old, who had been ricketty from her infancy, and was in a bad state of health. Her labour pains commenced on the 20th of January in the morning, and the section of the symphysis was performed by M. Verdier on the 23d in the evening. The bones are said to have separated to

the distance of two inches and fix tenths, and the child, we are told, was easily delivered, but died within an hour after its birth. The mother recovered, and, at the end of two months, the bones of the pubis were completely reunited, and she was able to walk and go about her business as usual.

43. Extrait des Registres de l'Academie Royale des Sciences, du 20 Juin, 1787. Rapport des Commissaires chargés, par l'Academie, des Projets relatifs à l'etablissement des quatres Hopitaux. 4to. Paris, 1787.

44. Memoire fur les Maladies les plus frequentes a Grenoble; fuivi d'un Essai sur la Topographie de cette ville. Par M. Villars, Medecin de l'Hopital et de celui de la Charité, Correspondant de la Société Royale de Medecine de Paris, &c. 8vo. Grenoble, 1787.

45. Memoire sur les Maladies les plus familieres a Rochesort; avec des Observations sur les Maladies qui ont regné dans l'Armée Navale combinée pendant la Campagne de 1779. Par M. Lucadou, Medecin de la Marine dans ce Departement, et chargé des Fonctions de premier Medecin dans cette Armée. 8vo. Paris, 1787.

46. Traité des Maladies Veneriennes. Par M. Jean Hunter, des Sociétés Royales des Sciences de Londres et de Gothemburg, Affocié Etranger de la Société Royale de Medecine, et de l'Academie Royale de Chirurgie de Paris, Chirurgien extraordinaire de S. M. Britannique, Chirurgien General en second des Forces de Terre de la Grande Bretagne, et de l'Hopital de Saint George. Traduit de l'Anglois, par M. Audiberti, Docteur en Medecine, Correspondant des Academies Royales des Sciences de Turin, et de Chirurgie de Paris, Membre du College Royal de Chirurgie de Turin, et Chirurgien Major du Regiment Suisse Valaisan de Courtan, au Service de S. M. le Roi de Sardaigne. 8vo. Paris, 1787.

47. Physikalische chemische Versuche und Beobachtungen. i. e. Physico-chemical Experiments and Observations. By Sigisbert Fred. Hermstadt. Part I. 8vo. Berlin, 1787.

48. Neue Versuche zu einer wahren Physiologie der Galle. i. e. New Experiments for an accurate Physiology of the Bile. By Sebastian Goldwiz, M. D. 8vo. Bamberg, 1785.



LONDON MEDICAL JOURNAL,

FOR THE YEAR 1787,

PART THE FOURTH.

I. Case of an Extra-uterine Fætus. Communicated in a Letter to Dr. Simmons by Michael Underwood, M. D. Licentiate in Midwifery of the Royal College of Physicians, and Physician to the British Lying-in Hospital in London.

RS. Sheppard, of Snow Hill, London, naturally a healthy woman, rather under the middle fize, muscular, but not inclined to be corpulent, was married in 1731, being then in her twenty-third year. She soon became pregnant, and miscarried at the end of ten weeks. She after this miscarried five or six times at nearly the same period of gestation.

In 1738, when in her thirtieth year, she again proved with child, and went on well till she had quickened. Unfortunately, at the end of five months, being violently frightened, she fainted away, and, upon her recovery, felt Vol. VIII. Part IV. Ss some-

fomething (as fhe expressed it) break within her, and from that period was for a confiderable time subject to returns of the fainting. She continued, however, to increase in bulk, and at the end of nine months, being affected with the grinding pains of labour, she fent for a midwife, who, though she could not discover any opening of the os uteri, was fully perfuaded that the abdominal tumor was owing to an enlargement of the womb. The pains continued to increase next day, but without producing any visible change in the os uteri. Dr. Bamber and other physicians being confulted, internal medicines and clysters were exhibited; notwithstanding all which, she continued in racking torture for four days, when she fell asleep, and, soon after awaked easy. During the following night fhe was affected with repeated faintings, and milk was then found to be in her breasts. She continued for a short time to be tolerably easy, but soon had fome returns of pain, and, for the first time, perceived a black, fœtid, bloody discharge from the vagina, which lasted four or five days, and during the five fucceeding weeks she had repeated appearances of this kind, attended

tended at times with violent pains, and a discharge of coagula, resembling pieces of sless. The swelling of the abdomen began gradually to diminish after the first discharge, and at the time the patient got abroad (which was two years after) was reduced to half the former size, and continued diminishing for the three succeeding years; during all which time she had painful discharges at irregular periods, and passed several of these solid coagula, which the byestanders imagined (contrary to the opinion of the medical gentlemen) to be parts of a placenta.

After these five years she passed no more solid coagula, but had the catamenia regularly, though painfully, and discoloured, for about two years more. In her thirty-seventh year, viz. in 1745, she thought herself breeding again, as she increased gradually in bulk, as before, to what she thought her full term of nine months, when, being seized with labour pains, which continued regularly for a whole day together, her midwise pronounced her to be certainly with child, but without any appearance of natural labour.

She continued to be haraffed with grinding pains, equally ineffectual, and frequently attended

tended with some discharge, every fortnight or three weeks, for about two years; after which the was attended by the late Sir William Watfon, who continued to vifit her occasionally the five fucceeding years, during all which time the enlargement of the abdomen remained, and the pains frequently returned. procured her temporary relief by opiates and clysters; but her complaints always recurring, she consulted the late Dr. Ward, who gave her repeatedly half of one of his fweating powders, which at first relieved her, but after the fourth dose brought on violent pain of four hours continuance; after which she fell asleep, and when the awaked was free of pain. In a week afterwards she found herself better, her abdomen gradually subsiding and her breathing becoming easier. The menses now returned more regularly, and in greater quantity, and in fix months the was reduced to her natural fize. She had, nevertheless, her usual and violent pains at times for about thirteen years.

About a year after the swelling of the abdomen had disappeared, she menstruated more sparingly, and at longer intervals, and began again to feel an increase of the abdomen, which

continued

continued for near nine months, and then gradually disappeared.

She had, after this, three more enlargements of the abdomen, of a shorter continuance, during the above thirteen years, but had no milk in her breasts, as in the two former of three and seven years.

At the expiration of these thirteen years from the fecond supposed pregnancy, after suffering pains for feveral days, fhe was feized, while fitting on the closeftool, with one more violent than usual, and passed something with great difficulty by the anus, which was found to be the rib of a fœtus. This was in the year 1759, about twenty-one years from her fright during pregnancy. The menses had then left her about twelve months. From this time fome bones came away every two or three days for feveral weeks, but with more case than the first, and she was able in about five weeks to walk about the house, but could not for three years walk half a mile. During all this time fome bones came away every two or three weeks; but after that time she remained easy for a quarter or half a year, without parting with any, and then gradually recovered a confiderable degree of strength.

The

The bones she voided seemed to be those of a fœtus of about five months growth, and were those of the ribs, scapula, and vertebræ, all of which were paffed previously to the beginning of the year 1770, when I first saw her, and received from her the above parrative. At this time fome bones were coming away every three or four days, but with less pain than formerly, and I found her, upon the whole, in tolerable good health. During the early part of the year 1771 she voided but few, but towards the close of it passed near twenty pieces of bone with confiderable pain, and she never could walk to any distance without suffering by it. this fhe voided very little bone till towards the end of the year following, when, falling down stairs, she bruised the os coccygis, which occafioned pain every time she went to stool. fore this fall she had got free of those bearingdown pains which she had been so long subject to; but after that she had more constant pain, though not fo violent. Several more pieces of bone were passed about this period.

During the space of two years after this fall she continued to void pieces of bone with much less trouble, and had frequent intervals of ease for months together, which enabled her to rewover her strength in a great measure, though the never was so easy as before the accident.

Towards the latter end of the year 1774 she was become pretty easy, and, by computation, it was found she had passed, in the last sisteen years, about three hundred small pieces of bone, and half as many larger, which last were very thin. At the beginning of 1775 she brought on a painful disorder of her bowels by an advertised purging pill, and after this she passed several pieces of bone, and particularly one, which seemed to be an exsoliation of the ileum, near two inches long.

In the course of the next year, 1776, many small bones were voided; but after this she remained upwards of a year without passing any, and again recovered her health and strength in a great degree.

After this she no longer passed any large pieces of bone, but sometimes simaller ones, without any other trouble, however, than that of some uneasiness when she allowed herself to become costive.

In 1778, when she had arrived at the age of seventy years, she received a considerable accession of fortune, which (owing probably to a frame enervated by forty years suffering)

fo changed her temper and deranged her mind, that she became peevish, emaciated, restless, and very soon after maniacal. She continued in that state till her death, which happened not long ago; and having been removed into the country, when she lost her senses, there was no opportunity of examining the body.

Great Marlborough Street, June 7th, 1787.

II. Observations on Extra-uterine Cases, and on Ruptures of the Uterus. By Maxwell Garth-shore, M. D. F. R. S. and S. A. Fellow of the Royal College of Physicians at Edinburgh, and Physician to the British Lying in Hospital in London.

HERE are few things more curious, and fewer still that are more useful, for an attentive physician to observe, than the very wonderful resources of which nature, undisturbed, is sometimes able to avail herself, when labouring under diseases seemingly desperate. Amidst the numerous variety of examples of this kind, which the curiosity and industry

dustry of writers of observation have recorded, there are none more striking than those means the has frequently made use of to free herself of the burden of an extra-uterine child. The great number of modern as well as ancient well-authenticated cases, in which the child has made its way, piecemeal, either through the ulcerated integuments of the abdomen, or the coats of the intestines, with safety to the mother, may shew us that the existence of a child in the open cavity of the belly, and its subfequent resolution, or its being turned into an indurated mass, is not always so fatal as might be apprehended; and what is still more extraordinary, we are not without instances where this process has taken place when the conception was not originally extra uterine, but where in the latter months of pregnancy the uterus has been ruptured, and the child has escaped into the cavity of the abdomen. Of this we read feveral examples in the curious Differtation of Thomas Bartholine, de infolitis partus humani viis, published at Copenhagen in 1664; in all of which the uterus was evidently ruptured, either in the latter end of pregnancy, or in labour, and the child had evidently paffed from the womb into the abdominal cavity, and VOL. VIII. PART IV. Tt

afterwards made its way through the integuments of the abdomen, or by the intestines *.

To this class I think may be also referred the case of a woman communicated by Dr. Percival in the Medical Commentaries, (Vol. II. page 77,) where, from the circumstances of flooding and pain brought on by a fud len fright in the fixth month of particular, there is great reason to suspect that the child then escaped into the general cavity, from with it was afterwards expelled, piecemeal, by the rectum, at the end of twenty-two years. I his woman's body not having been examined after death, leaves the sceptical room to doubt whether any actual rupture took place; but we have a more decifive proof of the possibility of fuch an event in the case of the woman of Toulouse, mentioned by Astruc &, who, during the pains of a very laborious birth, had her uterus burst, and her child passed into the cavity of

^{*} In two of the four cases of this kind, which he mentions, the fœtus made its way through the integuments of the abdomen, and in the two others by the intestines; three of the women recovered entirely, and the fourth survived some time, and passed many of the bones of her sœtus by stool, but did not live long enough to get rid of the whole.

[†] L'Art d'Accoucher, Chap. iv. page 288.

the abdomen, where it remained for twentyfive years, as was demonstrated when her body was examined after death.

In the History of the Royal Medical Society at Paris* we have a fimilar case communicated by M. Desbois, of a woman at Rochefort, mother of three living children, who, in her fourth labour, after fustaining pains of the most excruciating kind for thirty hours, and when, to all appearance, the birth was nearly effected, had at once the uterus burst through, and the child paffed into the cavity of the abdomen. Her pains from that moment left her entirely, and she felt only a dead weight in the hypogastric region. Fifteen days after, being examined by M. Rochard, Surgeon, he could find no part of the child, the head of which had been fo plainly felt by the midwife during the whole of the labour. After two months the integuments of the abdomen began to inflame, and there very foon broke out four different ulcers, which emitted very fœtid, purulent matter. In the third month after the inflammation had begun, when the woman was finking under colliquative fweats and hectic fe-

* Vol I. for 1776, page 388. 4to. Paris, 1779.

ver, she was brought to the Hotel Dieu at Paris, and from the largest of these abdominal ulcers, which was dilated, the bones of a sull grown child were extracted. In four months this woman had recovered her wonted looks and strength, and had no complaint but a sistulous ulcer at the navel, which emitted not only white, purulent matter, but sometimes even the saces, a clear proof that some part of the intestinal canal had been ulcerated, and adhered to the peritonæum.

A case very similar to this is inserted in the fournal Encyclopedique for June, 1777; and another was communicated formerly to the Royal Academy of Sciences* by M. Littre, with this difference, that the bones of the child, in that instance, made their way through the rectum.

In the volume † I have just now quoted, of the History of the Royal Medical Society, a case so very extraordinary is communicated by M. Bouillon, Physician at Mortain, that nothing but the respectability of the publication in which it is inserted would induce me to copy

^{*} Mem. de l'Acad. Royale des Sciences, année 1702, p. 234.

[†] Page 310.

it. We are there told that a well-formed woman, mother of many children, was attended in a preternatural labour by a very unskilful accoucheur, who, after many fruitless attempts. at last brought away the child dead, but with only one arm, the other having been left in the body of the mother. She continued, after this, to have pains; fever foon came on, and an inflammatory tumor was formed in the hypogastric region, which suppurated, and discharged a large quantity of purulent matter; and foon after the humerus, and in fuccession the other bones of the upper extremity, which, during the labour, had been separated from the trunk of the fœtus, prefented themselves at the abfcefs, and were extracted, and the woman by mild dreffings was completely cured.

In the Journal de Medecine, (Vol. VI*.) we have a case communicated by M. Guillerme, of a stout woman, who, in her thirty-first year, by a fall from a waggon, had the uterus burst in the sisth month of pregnancy, which was succeeded by slooding, sever, and violent pains. The os uteri was found open, but no abortion took place. The child was from that moment without motion, and her belly diminished in

fize. In two months fhe recovered feemingly her usual health, and remained well till the seventh month after the accident, when there arose an inflammation of the abdomen, attended with acute fever, and fucceeded by a violent diarrhæa, in which she passed great quantities of fæces, so very fætid, that she was obliged to be removed to a room by herfelf. In the eighth month from the accident, and when this diarrhœa had continued fome weeks, she began to pass the bones of a sœtus, seemingly of five months, and continued fo to do for the three fucceeding months, and before one year had elapsed, from the time of the accident, she was restored to perfect health. But a still more certainly-authenticated case of the same kind happened lately in this capital: - A poor woman, after violent exercise, suffered a rupture of the uterus in the feventh month of pregnancy, and furvived it so long as to give nature an opportunity of completely enclosing the excluded fœtus in a strong sac, from the bottom of which all the foft parts had gradually paffed into the lacerated uterus and through the vagina; and when the bones had begun to make their way through the fubstance of this fac and the abdominal integuments, the falu-

tary process of nature was interrupted, a new and fatal inflammation brought on, and the woman destroyed, by an imprudent exposure to violent motion above four months after the rupture happened. Need I add the authority of Plenck, who, treating of rupture of the uterus, mentions the two resources of nature, already described, in the following words *: -" Moriuntur infelices hæ matres utplurimum " intra aliquot dies ex uteri, et abdominis gan-" græna.... Interim tamen habentur casus, quibus fœtus extra uterum lapfus per absces-" fum, vel gangrænam topicam abdominis exierit, et mater fuerit fervata.... Potest, et fœtus in lithopædion mutari, et gravidi-" tatem perennem inducere."

In farther proof of the wonderful power of the vis medicatrix naturæ, nothing can be stronger than the circumstances of the very curious case communicated to Dr. Simmons by Dr. Underwood, the consideration of which led me to this inquiry, as I am inclined to believe that the uterus in that case was ruptured when the patient fainted from the violence of the shock she received at the end of the sifth month,

^{*} Elementa Artis Obstetr. page 129. 8vo. Viennæ, 1781.

and that to this rupture were owing all those violent fymptoms which afflicted her for the five fucceeding years. But what adds very much to the fingularity of the case is, that there is much reason to suspect, from the enlargement of the abdomen, fecretion of milk in the breafts, and the other fymptoms described by Dr. Underwood, that this woman became, at the end of feven years, a fecond time pregnant, and whilst the former foctus remained in the abdomen: and this fecond conception, if it did take place, was most probably extra uterine. With this the was haraffed for fix years more; and it was not till the twenty-first year after the supposed rupture that she began to get rid of those fœtal bones by the intestines, which continued to be discharged with infinite pain and distress for above eighteen succeeding years; and from their great number, and the length of time neceffary to their expulsion, we have still stronger reason to suspect there was a second conception. But we want the decifive proof, which could only have been obtained by the examination of the body after death. I am, however, justified in the probability of my conjecture by examples, of which there can be no doubt.

In the fecond volume of Medical Observations and Inquiries, Mr. Bard, of New York, communicates a case, to the termination of which the late Dr. Huck Saunders was witness, where a woman, who had been fourteen months pregnant of an extra-uterine child, conceived a fecond time, and was delivered at the full term of a healthy boy; foon after which the abdominal tumor occasioned by the former child began to suppurate, and being afterwards opened, a fœtus of the common fize was extracted from it. In the fifth volume of the Medical Effays of Edinburgh, Dr. King, of Armagh, communicates a case where a woman, who had been fix years pregnant with an extra-uterine fœtus, became with child a fecond time in the fame way. The fœtus of the fecond conception was extracted almost entire through an ulcer formed in the integuments of the abdomen; and the bones of the first were gradually passed, partly by the rectum, and partly, as is faid, by the bladder, by which I suppose is meant the vagina.

But what approaches still nearer to what I suppose to have been the circumstances of Dr. Underwood's patient is the case related by Prime-

VOL. VIII. PART IV. Uu rose. rose 4, of a woman at Bourdeaux, who, after having two years carried a fectus, supposed to have burst from the uterus, became pregnant a fecond time of an extra-uterine one. The first was extracted through an abscess formed in the abdominal integuments, and the fecond by an operation performed on the other fide of the abdomen. Thomas Bartholine, who quotes this case in his Differtation before mentioned, and who confiders all the concomitant circumstances at great length, entertains no doubt that the former of these children had made its way through the uterus into the open cavity. But should his reasons not appear sufficiently fatisfactory, we have still a more unequivocal case in the Journal de Medecine, (Vol. V +.) communicated by M. Bochard, of a woman in Dauphiny, who, in the feventh month of pregnancy, by a fall from a tree, had the uterus burst, and the child passed into the open cavity, from which time she felt no more motion, and was difcovered, on examination fome months after, to have a heavy, moveable tumor in the abdomen, and to have fuffered much pain and inquietude. At the end

^{*} De Mulierum Morbis. 4to. Roterod. 1655. p. 326:

⁺ Page 422.

of the fifth month from the accident she had discharges of blood, from the uterus, for several days together, mixed with portions of hair, of which fome were evidently of the head, and in a week after these discharges her abdomen was confiderably diminished in fize. In the feventh month from the fall she became again pregnant, and in the feventeenth was delivered of a living child. Three months after this (that is about twenty months after the fall) a painful tumor was formed in the integuments of the abdomen, and very foon after an open ulcer, from which much purulent matter was discharged, and afterwards small bones. This induced M. Glodat, the Surgeon, who was concerned in the case, to dilate the opening, from which he extracted the skeleton of a child, and the placenta in a feemingly petrified flate. This woman, as well as the three former I have mentioned, are all faid to have been restored to perfect health.

If I have in any degree been able to fatisfy the curious that nature is fometimes able to free herfelf of a fœtus that has made its way through the uterus, I certainly shall have less difficulty to prove that she may more easily free herfelf from the burden of a child formed in the gene-

U u 2

ral cavity, and there would be no difficulty in producing instances of that kind, but I am certain they are already fufficiently known to all who inquire into these matters. I cannot, however, refrain from mentioning one, as being the most extraordinary I have ever heard of. It is quoted by Bianchi * from Ruleau's work on the Cæfarean operation, and relates to a woman who became pregnant, at three different periods, of three feparate extra-uterine children, which all died in the early months of pregnancy, all became putrid in the body, and were all extracted through an ulcer formed in the umbilical region. Bianchi concifely adds, "Hæc igitur mulier ter partuum labores, ter internos " abortus, ter fœtuum neces, terque eorum " corruptiones sustulit : deinde sana rectéque " fœcunda vitam degit," by which it appears that this woman not only completely recovered, but became fruitful afterwards. The inflances in which women have furvived, for many years, extra-uterine children, by their being converted into what has been called a petrified or cartilaginous mass, are too well known, and have had too much faid about them, to make either the

^{*} De naturali in human. corpore vitiosa morbosaque Generatione. 8vo. Turin, 1741. p. 100.

fact doubtful, or quotations necessary; yet I can hardly pass over the instance of this kind given us by Dr. Starkey Myddelton, in the Philosophical Transactions*, of a woman he opened at Guy's Hospital in 1747, in whose abdomen he found the body of a child attached to the right fallopian tube, and changed into a kind of cartilaginous mass. This woman he had formerly attended with Dr. Bamber, and was well affured that fixteen years before, this extra-uterine child had died in consequence of a fright in the fixth month of pregnancy; that, after fuffering much diffress, the woman, at the end of twenty-fix months, had become a fecond time pregnant, been delivered of a living child, and afterwards of three more at the full term, and had certainly carried this extra-uterine fœtus full fixteen years before her death.

To this inflance I could eafily add feveral more of what have been, though improperly, called petrified children, which have remained in the body from five to forty-fix years, without much diffurbing the health of the mother, who, in some of the inflances, bore (as in the case above mentioned) healthy children in the time whilst this mass remained.

But the most extraordinary instance of this kind is that of the woman at Turin, in whose abdomen Bianchi*, in 1728, found a sætus, weighing eight pounds, which had, as he supposed, fisteen years before, burst from the right ovarium at the full term of pregnancy, and was found covered very closely by the membranes, and inclosed by a thick sebaceous crust, which, on being exposed to the air, hardened into a kind of gypsum; by which crust, and the membranes of the secundines, the child was preferved so fresh, and slexible, as to exhibit the appearance of a mature child not long dead.

In a table, which I have now before me, of fixteen extra-uterine cases, extracted from the most respectable authorities, I find that seven of them terminated, as in Dr. Underwood's case, by the bones of the sætus having passed off by the rectum, and that in the nine others the sætus was extracted through abscesses formed in the integuments of the abdomen, and that most of the women recovered entirely, and several of them bore healthy children afterwards.

I shall now beg leave to offer some observa-

^{*} De nat, in hum. corp. vitiosa morbosaque Generatione, p. 166.

tions relating to conceptions in the ovaria and fallopian tubes, and to the ruptures which are their general consequence. I am induced to do this by a case described lately in the London Medical Journal * by Mr. Jacob, of Faversham, which, in fome respects, is still more curious than the one communicated by Dr. Underwood, which I have been just now treating of. I have no doubt but the conception, in Mr. Jacob's patient, was originally formed in the fallopian tube, and I am led to be of this opinion from a confideration of the inceffant colic, dyfury, costiveness, sickness, and want of natural reft, with which she was harraffed in the early months of pregnancy; and still more decifively from that inward fense of plunging, attended with fevere pain, which continued without ceffation, and was fo violent as to bring on convulfive fits, in the fixth month; it being perfectly well known to those who have attended to the fymptoms of ovarian and tubal conceptions, that they are always attended by many irregular, painful, and distressing complaints during the whole term of pregnancy; that they are peculiarly distinguishable from uterine conceptions, by these complaints con-

tinuing to increase in violence in proportion as the pregnancy advances, and this from the most obvious causes, viz. the violent and preternatural distention of the narrow space in which the ovum is unfortunately lodged, and from the irregular compression they often occasion to the abdominal organs: whereas in uterine conceptions, in the latter months of pregnancy, all these anomalous symptoms, which are so common and diffreffing during the early months, are, after the fourth or fifth, greatly alleviated, and most commonly totally disappear. But had this conception not been lodged either in the ovarium or tube, the patient could hardly have escaped abortion under such violent symptoms, as that accident occurred in her first pregnancy from a very flight cause; and what still farther confirms its being a tubal conception is, her having experienced the common termination of fuch cases by the rupture of the tube in the feventh month, which appears to me to have happened when " fhe fuddenly waked in a " great fright after having dreamed she had " fallen from a precipice," as from that time she not only found an evident alteration in the fituation, but also a total want of motion, of the child, which ever after felt to her like a dead

dead weight in the abdomen. I, therefore, think it is more than probable that the child then passed into the abdominal cavity, and that this rupture, together with the confequent alteration of the child's fituation, and its death, gave occasion to all that subsequent variety of symptoms with which this poor woman was harraffed until the twenty-fifth month after conception, and the eighteenth from the supposed rupture, when the fœtus was extracted through an abscess formed five months before in the integuments of the abdomen. If we may be allowed to judge by the growth of fourteen inches, to which only this child had arrived, we must suppose either that it had been very much retarded in its increase by the sac in which it was contained, or that it must have died previous to the feventh month, when it burst its way into the general cavity.

When we attend to the circumstance of the menses, (which have been conjectured, with some probability, to depend on the state of the ovaria) we must be led to suppose, that when they appeared in the seventh month after the rupture, and the thirteenth after conception, the uterus and its appendages were disengaged from the sœtus; and had not their regular dis-

Vol. VIII. PART IV. X x charge,

charge, after feven fuccessive periods, been obfiructed by the derangement of the constitution from the abdominal inflammation, which then supervened, it is probable they might have continued to be regular till she had again become pregnant.

A woman furviving this accident is, perhaps, a rarer occurrence than her furviving a rupture of the uterus; as it has been clearly afcertained that conceptions in the ovaria or Fallopian tubes are not only distinguished by the exquifite and increasing pain which attends the whole progress of such gestations, but by the fudden fatality which the burfting of the fac generally occasions. Of this we have a variety of instances very well authenticated. Among feveral recorded in the Philosophical Transactions, there is one very remarkable, described by M. de St. Maurice*, of a woman who died fuddenly in confequence of the fætus bursting from the right ovarium; and another, communicated by Dr. Fern +, in which the fœtus burst from the tube, and which was M. Chambon de Montaux : equally fatal.

^{*} Phil. Trans. No. 150, p. 285.

[†] Ibid. No. 251, p. 121.

Des Maladies de la Grossesse, Tome II. p. 373.

rnentions the case of a woman who died very quickly in confequence of an effusion of blood occasioned by a conception of two months having fuddenly burst from the right ovarium; and in the first volume * of the Medical Commentaries of Edinburgh a case is mentioned, which Dr. Hunter used to relate in his Lectures, of a woman, in whose body he had found the Fallopian tube burst by the growing conception in fo violent a manner as to occasion a fatal internal hæmorrhage. But we have had a still more remarkable case, of a similar kind, which happened lately at an hospital in this city, of a woman who was admitted under fufpicion of a dropfical complaint, but was discovered to be pregnant, and who, after fuffering infinite diffress, was at last destroyed by the gradual dilatation of the left Fallopian tube, in which a fœtus had been conceived, and had advanced to the end of the fifth month of pregnancy. In this case, although the fœtus had not yet burst into the general cavity, yet it had rendered the tubal fac fo thin and tender, that it could not bear handling, but gave way on one fide when the parts were taken out of the

* Page 429.

X x 2

body,

body, fo as to discover nearly half of the child. This curious preparation is now in the collection of Mr. Watson, who has been long accustomed to anatomical inquiries, and who means to give a more particular account of it. This case, as well as that mentioned by Boehmer *, where the mother died when the child had only passed one leg through the lacerated ovarium in the fourth month, may shew us that the hæmorrhage, which seems to have been the immediate cause of death in the cases I have already mentioned, is not always a necessary circumstance, as the inexpressible anxiety, pain, sever, and inflammation, that are commonly brought on, are of themselves sufficient to destroy.

Though this bursting of the sætal sac will generally take place before the end of the fourth month, and that more readily if the conception be formed in the ovarium, which does not so easily yield to the increasing bulk of the sætus, yet we see that conceptions in the Fallopian tube do often allow of a greater dilatation; nay, we are told of some rare cases where they have advanced, in this situation, till the full term of pregnancy. One of these

^{*} Observ. Anat. Fascic, I. Fol.

is quoted by Haller, and another by M. le Roux*, of Dijon †; yet M. Baudelocque's account of the matter! feems to me to be founded on good observation.

Though the case of a setus making its way from the Fallopian tube, or ovarium, is very commonly satal, either immediately, or in its consequences, yet we are not without instances where, as in the case related by Mr. Jacob, the woman has survived. Pouteau § tells us of a Madame Claris, who, at an advanced age, had a conception formed in the left Fallopian tube. In this case all the soft parts of the sectus were passed off by stool, and the bones,

^{*} Obs. fur les Pertes de Sang. p. 24.

[†] It appears, notwithstanding these exceptions, that the Fallopian tube cannot, in general, sustain a dilatation greater than is sufficient to contain an infant of three or four months, and that it is at this period that the section usually perishes; after which it either becomes dry or putrid. Sometimes also the tube gives way, and the child escapes into the abdomen, where it undergoes one of these changes. In all these cases the sate of the woman is different, according to the change the child undergoes. She may live a long time, and without her health being much affected, when it is dried, or indurated, as it were, but she will certainly seel very dangerous essects when putrefaction takes place.

[‡] L'Art des Accouchemens, Tome II. p. 329.

[&]amp; Melanges de Chirurgie, p. 383.

after death, were found lodged in the tube, after having remained there feven years and a half. During the whole of this time she suffered great distress; and it is more than probable she might have survived the complete evacuation of the sætal bones, had it been possible to prevail on her to take the least care of her health.

Cyprianus * formerly published a very remarkable case of a lady who had a full grown sectus, which had been originally contained in the right Fallopian tube, and which occasioned an abscess in the abdominal integuments, through which it was extracted, in the twenty-first month after conception; and the patient recovered so completely as to be afterwards the mother of three living children.

Bianchi i mentions the case of a woman, who, at the age of thirty-two, conceived a child, as he supposed, under the external membrane of the left Fallopian tube, which appears to have burst from its sac in the fifth month, and to have occasioned a variety of complaints

^{*} Hist. Fetus humani falva matre ex tuba excisi. 8vo. Leid. 1700.

[†] De naturali in hum. cerp. vitiosa morbosaque Generatione:

in the stomach, intestines, and uterus, till the eighth, when she began to pass the bones by stool, and continued so to do for the sive succeeding months. She survived their total expulsion three months, and, after her death, what was supposed to be the placenta, was found adhering to the posterior part of the uterus, to the simbriæ of the right Fallopian tube, and to the colon, where a passage was found through which the bones had passed,

As the poffibility of furviving this accident feems to be well afcertained, I hope my conjecture of its having been the case in Mr. Jacob's patient may not be deemed very improbable, and therefore the urging more reasons, or quoting more instances, may be thought unnecessary; but as I am upon the subject of the female conflitution being able, by the powers of nature alone, to furvive conceptions of this kind, it may not be improper just to add one instance of the other method by which we have faid nature fometimes evades, as it were, the fatal consequences that would otherwise follow - I mean that in which the child dies early in the ovarium, or tube, and becomes an indurated mass. The nature of this substance, which has been mentioned under different appellations.

pellations, has never been clearly ascertained; all those instances of it, which I have examined, confifted only of the bony and cartilaginous parts of the fœtus (the foft parts having been previously melted down and carried off) closely compressed together in a facculus by the furrounding parts, where they became much drier than common cartilage, and were fometimes firmly united by animal mucus, which was also become nearly hard. I have given one very fingular instance of this kind, from Bianchi, in the former part of this paper, and I will only add another, which we find mentioned by Dr. Fern in the Philosophical Transactions*, who tells us, that, upon opening the body of a woman who had supposed herself to be three months gone with child, he found the womb not larger than it is usually found in virgins, but a hard substance in the right Fallopian tube, which, being opened, appeared to be the skeleton of an infant, with the navel ftring fmeared round with a white fubstance not unlike plaster. M. Baudelocque + mentions a

very

^{*} Vol. XXI. p. 121.

[†] Nous y avons rencontré il y a plusieurs années, une masse offeuse assez informe, entourée de neuf dents bien solides, & beaucoup

very remarkable appearance in the ovarium, of which there have been other inflances. Roeden describes also a peculiar termination of the ovarian conception, but of which I have not met with any other instance, and that is, its occasioning a dropsy of the ovarium, and that, after tapping, the remains of a sectus were extracted through the dilated orifice.

It may perhaps be expected that, before I conclude this fubject, I should suggest a few things respecting the usual symptoms by which we may distinguish these extra-uterine conceptions; though, in general, it must be acknowledged, that in the early months they are, and must be, attended with great obscurity, as none of the symptoms, said to be distinguishing, can be depended on till we are able to determine the exact state of the uterus by examination.

We are told that in the purely ventral conceptions the menstrua continue regular, that the stomach is not affected with sickness and vomiting, and that there is no sceretion in the breasts; but all these circumstances do some-

beaucoup de cheveux entre mêlés dans une grande quantité de matiere, comme butireuse. — L'Art des Accouchemens, Tome II. p. 322.

* Elem. Art. Obstet. Cap. xxv. § 758.
Vol VIII. Part IV. Yy times

times take place in uterine conceptions. If, however, the child be in the open cavity, it will certainly give less pain to the mother, will feel freer in its motions, and be more readily distinguished under the integuments; but as it increases in fize, in whatever region of the abdomen it happens to be fixed, it must always occasion painful effects to those viscera that are exposed to its compression; so that either the action of the stomach, liver, intestines, kidnies, or bladder, may occasionally be much deranged by an increasing tumor of this kind.

Conceptions in the ovaria or Fallopian tubeswill always be confined to the lower region of the abdomen, and the fwelling will always begin on one fide, and must constantly be attended with fevere and increasing pain, which is said to be more acute when the conception is in the ovarium than when it is in the tube. In these cases the menses are obstructed, and the milk fecreted, as in the case of uterine conception. In the ventral conceptions, however, it may not be difficult to diffinguish, when we examine per vaginam, that the uterus is empty; for it is faid to be enlarged even in these cases: yet it would be more difficult to determine in early pregnancy, when the conception is in the ovaria

ovaria or tubes, whether it is uterine or not, as there must be some degree of resistance selt to the raising up of the uterus; so that it can only be by those who are perfectly accustomed to distinguish the seel of the unimpregnated uterus that this can be determined. As the pregnancy advances the case will become clearer, and we shall be able, by degrees, to determine decisively that the conception is not uterine; and, by the external seel and appearance, to form an opinion of the actual situation of the sectus.

We are told that these conceptions sometimes take place under the external membrane of the ovarium or tube, and that in these cases the dilatation may go on with much less difficulty to the mother; but we want accurate dissections, and are frequently at a loss to understand those writers who attempt to be the most particular in their accounts of such cases. Fortunately, however, these distinctions signify very little in practice, as all these extraordinary variations of nature, in this business, are almost equally deplorable and unmanageable by art, till nature kindly points out how she chooses to be relieved. And it has been uniformly observed in all these cases, that at the natural

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term

term of pregnancy there is always an effort to expel the child, which, in some cases, is frequently and violently repeated. And it has been also observed, that at whatever of the later months the child dies, there commonly follows a flow of milk to the breasts.

From the cases I have adduced, I think it appears clearly that a child, remaining in the cavity of the abdomen, is fo far from being necessarily a fatal accident, that it does not even prevent future pregnancies, and confequent natural births; nay, we farther know, from a case communicated by Dr. Steigerthall, in the Philosophical Transactions *, that a woman has lived in good health to the age of ninety-four with a full grown fœtus in her abdomen for the last forty-fix years of her life, during which period she bore two other children. But what is still more extraordinary, we have good reason to be assured that women have not only for a confiderable time furvived, but even fometimes recovered, by the powers of nature, after the child has escaped through a rupture of the uterus. I am, therefore, much inclined to believe, that when this

accident happens at any period of pregnancy previous to the complete dilatation, or rather to the eafy dilatability of the natural passages, the mother will have a better chance for life, if left to the resources of nature, assisted by palliative remedies, than by a speedy and violent dilatation of the parts, and an extraction of the child through a lacerated uterus, which is likely still to suffer more by such an operation in a constitution much weakened, and at that time highly irritable from pain, anxiety, and terror.

I have myfelf been called in to ten cases of ruptured uterus, and have before me the account of many others attended by gentlemen of the first abilities and experience. Of these much the greater number were delivered very soon after the rupture took place *; but in no instance have I had reason to believe that the mother survived a longer time than she would have done if left entirely to nature; and were I to presume to conjecture from the cases of this kind that have occurred to me, I would say hardly so long.

Delivery was effected in all the cases where a speedy ceath did not render it unnecessary.

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I could easily give a number of cases to which I have been witness, in support of this opinion, but none stronger than the one which happened to a patient of my late worthy friend Dr. Bromfield, whose caution, sagacity, and experience, were well known to many of his brethren. Whilst he was patiently attending the natural labour (which had not lasted long) of a lady who had a well-formed pelvis, and had been the mother of feveral living children, on a fudden his patient gave an uncommon fcream, and, on examination, he found that the uterus had given way, and the child escaped beyond his reach. This happened when the passages were fully dilated, and when the head of the child was at the os externum, fo that the delivery feemed to be nearly accomplished. No very alarming fymptoms immediately followed the accident; and the patient was very cautioufly, and with great ease, delivered of a child that feemed to have been fome time dead. This was done by the advice of five phyficians of experience, three or four hours after the accident, but she survived the delivery only thirty-fix hours.

It may, however, be confidered as a good general doctrine, that in all cases of labour rendered

rendered dangerous by flooding, convulfions, or rupture of the uterus, the delivery of the child, when the state of the natural passages will allow its being done without violence, is a defirable circumstance, on account of the prejudice of the world, and of the patient herfelf, in favour of delivery; besides the better chance of recovery it may fometimes give. But from all I have been able to observe, during a number of years, I am fully inclined to believe that a violent and speedy delivery is not the fafest practice; and though in the cases of hæmorrhage there may be more frequent and urgent reasons for it, yet I am certain that great discrimination and caution are necessary even in these; but in cases of convulsions I can fpeak with more certainty.

In October, 1779, I had the honour to lay before the Society of Physicians, Licentiates of the College of London, an estimate of the events of convulsion cases, taken with tolerable accuracy from most of those on record, as well as from a pretty large number I had mysfelf been witness to. From these it appeared that a greater number of those women recovered who had not been delivered, by violent dilatation, than of those who had; and that de-

livery, fometimes, had not even cured the consultions, much lefs faved the patient.

With regard to ruptures of the uterus, I was first induced to be of this opinion by a remarkable instance of such an acccident which occurred spontaneously, at an early period of labour, before the os uteri was dilated, and at a time when nature seemed to have exerted so little violence as to render it very difficult even to conjecture how it could have happened.

This very unfortunate and unexpected occurrence induced me to estimate the consequences of all the variety of the accidents of this kind, which either my reading, my information, or my practice, could furnish me with. From this inquiry I was led to believe that my patient (the first I had then heard of, in this country, who had been known to furvive fuch an accident for fo long a time as twenty-fix days) would have had a better chance of recovery, if, according to the opinion of the late Dr. Hunter, Dr. Bromfield, and Mr. Graves, joined to my own, she had been left to the resources of nature; instead of having a child, known to be dead, dragged, through the lacerated uterus, by the exertions necessary to effect the dilatation and extraction: but, unfortunately, we were

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over-ruled. Her fymptoms, not apparently mortal before, were certainly not relieved by delivery. She died on the twenty-third day after the extraction, and her body exhibited all the appearances of peritonæal inflammation, which there is the greatest reason to suspect took place after that period.

As there are repeated inftances to prove that a rupture of the uterus, near the full time, is not always, of itfelf, necessarily a fatal accident, I hope I am justified in presuming to suppose, that had my patient been kept perfectly quiet, the non-naturals been attended to, and occasional symptoms obviated, she would have had a better chance from the resources of nature.

It has not yet appeared from any one case I am acquainted with, that the mother's life has been saved, by a delivery, where a violent dilatation of the natural passages was necessary; but, on the contrary, that almost all have died who have been delivered speedily, even when this has been done with very little trouble. Whereas, on the other hand, several have survived when they have been entirely let alone. But the sact really is, that those cases in which an opportunity for deliberation is allowed of, are unfortunately as rare as they are dangerous,

VOL. VIII. PART IV. Zz the

the accident most commonly taking place at a time when the labour is very far advanced, and when the dilatation of the os ureri is totally or nearly completed; in which fituation, if we find it can be done with eafe, there are many reasons, prudential as well as scientific, to determine us to relieve the patient's mind, and the minds of her friends, as well as to free the abdomen from this extraneous body. But were we even convinced that her chance for life would be better by refraining to add violence to violence, this opposition to general prejudice can only be effected in patients whose apprehensions we can quiet, with friends whose reasons we can convince, and by the authority of reputations so established for judgement, experience, and humanity, that no blame can be incurred, whatever may be the event.

To those who have considered this subject it will appear clear, that no part of this reasoning will apply to any of those cases where a laceration of the vagina, or of any part of the cervix, takes place after the complete dilatation of the os uteri, so that no violence becomes necessary in order to introduce the hand: and this appears to me to have been precisely the case in almost all those fortunate instances where

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the patients recovered after a speedy delivery. It is perfectly well established, by experience, that lacerations of the vagina and cervix uteri, though always dangerous, do frequently happen with impunity; and this has been confirmed to me by instances to which the late Doctors Hunter, Harvie, John Fordyce, and feveral other eminent practitioners, have been witness; and I could easily quote instances of recovery after lacerations of the uterus, very fimilar to those mentioned by Peu* and Dr. Hamilton +; or to that where the cervix uteri had been violently torn, as described by an eminent practitioner in Dorsetshire in a letter to the late Dr. Hunter, which the latter communicated to the Society of Physicians, and which having never been published, I shall here mention more particularly, and as a farther proof of what I have afferted.

This case happened in the year 1777. The labour had been tedious and fatiguing, and the os uteri being very slow in dilating, the forceps were prematurely attempted to be applied, and the first blade was violently introduced through

^{*} Pratique des Accouchemens, p. 341.

[†] Outlines of Midwifery, p. 344.

the undilated mouth of the uterus. In the rash and forcible attempt to introduce the fecond blade, it was forced through the substance of the cervix uteri, into the cavity of the uterus, at that part where it is inferted into the vagina, and the blades being locked, the head was attempted to be extracted by main force. The torment occafioned by this violent and rash operation was too excruciating to be endured. Another practitioner was immediately called in, who, difcovering the head of the fœtus protruding through the artificial opening, and enlarging the laceration towards the fundus uteri at each return of pain, thought proper to divide the os uteri, and to lay both openings into one. By a few more strong pains the patient was delivered, and the recovered without a fingle dangerous fymptom of any kind supervening.

That lacerations of the vagina and cervix uteri (which, at the period of complete dilatation, are to be confidered as one canal) should be much less dangerous than such as happen higher up, may be probably accounted for by the much freer discharge which the blood, serum, and pus, can have out of the body.

I need not add to the number of cases, in which it has been found that the cervix uteri may

be injured with impunity, those very remarkable ones in which there has been a necessity, from some mal-conformation, to open the os uteri, by incision, at the time of labour, in several of which we know children have been happily delivered with perfect safety to the mother.

It is by no means necessary to enter into any reasoning respecting the situation of the rupture in the case so accurately described by Dr. Douglas*, or to determine whether Mr. Goldson is right or wrong in supposing this case to have been only a rupture of the vagina. One circumstance, however, remarkably distinguishes the case which occurred to Mr. Goldson from that described by Dr. Douglas. In the former, the bladder was ruptured, and in the latter it was not, which, I think, renders it more than

probable,

^{*} Observations on an extraordinary Case of ruptured Uterus. 8vo. London, 1785. — See also Vol. VI. of this Journal, p. 91.

Journal, p. 91.

† In a work, entitled "An extraordinary Cafe of lacerated

[&]quot; Vagina, at the full Period of Gestion; with Observations, tending to shew that many Cases related as Ruptures of the

[&]quot;Uterus have been Lacerations of the Vagina." 8vo. London, 1787.

probable, that though both the ruptures might be transverse and low down, yet that in the case described by Dr. Douglas, the rupture was higher than in the other. From the account Dr. Douglas has given of this case, I find it to have been of that kind that required n artificial dilatation to effect the delivery, his hand having been in the cavity of the abdomen, and in contact with the intestines and bod of the child, before he knew precifely what the case was. In that fituation there could be neither occasion nor time for hefitation, and he certainly decided right in bringing the feet down with him. Nothing could be better managed, or more fortunate; but it requires no reasoning to prove that neither from this case, nor from any of the other fortunate ones before mentioned, can a rule of practice be derived as to the mode of treatment when the rupture takes place whilst the parts remain in a great degree undilated; for which reason what I have suggested, as the fafest method in such situations, remains precifely as if no fuch cases had ever happened.

The practice of speedy delivery is neither new nor untried. It is the obvious, and it has been the common practice; but it has generally rally been unsuccessful #: and the contrary method, as it opposes common prejudices, which are always on the side of delivery, has been hitherto (if I may be allowed the expression) very unpopular. I would only wish to awaken the minds of the judicious and candid to a confideration of the most probable chance of life to the mother in so desperate a situation. I hope I need not recommend the refraining from all operative methods, when the rupture takes place at any period of pregnancy, whilst the uterus remains fealed up, as it were, and whilft the cervix uteri remains unobliterated; though it is difficult to suppose that any one, possessed of even the flightest knowledge of the practice of midwifery, would venture to attempt to force open the uterus at fuch a period, yet fuch attempts are much to be feared from the daring

^{*} In the Collectanea Societatis Havniensis, Vol. II. p. 203, there is a remarkable case of a spontaneous rupture of the cervix uteri and vagina on the right side, through which the child escaped, and in which, delivery, though immediately esfected, did not long protract the mother's life, who died the next day: and we find a second in the same volume, p. 326, where the rupture seems to have been occasioned by violent attempts to turn the child, and where delivery, though immediately esfected, did not obviate the most dreadful symptoms, which came on speedily, and, notwith standing the most judicious exertions, became fatal in three months.

and inexperienced, if speedy delivery be inculcated as giving the best chance of recovery in all cases where the uterus is ruptured. There can be no doubt that by an over caution, approaching to timidity, patients may fometimes be fuffered to die who would probably recover by a bolder practice. But this is not the common fault of the young and inexperienced; for in them we more generally find a natural propenfity to activity, and a defire to affift, which, in midwifery, is infinitely the more dangerous extreme; and it is perfectly well known that caution and the leaving much to nature, which are fo effentially necessary in this practice, are the usual effects of age and experience, and are certainly the best general rules, though not without exceptions with respect to the latter, which ought only to be made from the dictates of found judgement, matured by accurate observation.

I will venture to go still farther, and to declare, though with the utmost dissidence, that if I could be assured of the child's being alive, I would join in opinion with Bartholine, Astruc, Roederer, Plenck, Levret, Baudelocque, and many others, that it appears to be a safer method, and likely to give the woman a better chance of recovery, to divide the parietes of the abdo-

men, and extract the child in that way, than to risk a forcible dilatation and increased laceration of the uterus. I will beg leave to submit my authorities for hazarding this opinion with respect to a practice which has not, so far as I know, been adopted in this country. First, then, Bartholine says, "Facilior omnimo hic nascendi modus periti chirurgi manu administratus, qui nostras sæminas terret, sectionis istius ignaras, minorique dolori junctus, quùm citius levi vulneri abdomen aperimatur, quam naturales partes dilacerentur."

Aftruc tells us that a German physician (whom he does not name) has written a very good differtation on ruptured uteri, in which he proposes to extract the child by dividing the integuments of the abdomen; and this method Aftruc highly approves of in cases where the child has previously escaped into the general cavity. He assures us that if this operation is performed as soon as the mother can bear it, and when she has recovered the immediate flurry of the accident, it will certainly save the child, and very probably the mother also; it being well known that ruptures of the

Vol. VIII. PART IV. 3 A uterus

^{*} De insolitis partus human. viis, p. 107.

[†] L'Art d'Accoucher, p. 291.

and this operation being no more than a simple incision of the integuments.

Roederer, in his Elementa Artis Obstetriciæ*, expresses this opinion very strongly.

"Quoties integer sætus, vel saltem cum ca"pite truncus, prouti frequentissme accidit,

extra uteri cavum propulsus est, sola abdominis matura apertio matri forsan et sætui

vitam servare potest. Utero, contusione,

gangræna sphacelove, ut solet, corrupto,

debitis remediis, utcunque poterit, medicus

prospiciat."

Plenck is of the same opinion: — "Si vero fœtus per uteri vulnus invenitur totics in abdomine elapsus, tunc gastrotomia indicatetur, ut sœtus posset educi; at ut plurimum pessimorum symptomatum, et mortis instantis præsentia quemlibet ab operatione deterrent -:"

Van Doeveren ‡ advises, if the child escapes through the ruptured uterus alive, that it should immediately be saved by opening the parietes of the abdomen.

^{*} Cap. xxv. 9. 767.

[†] Elem. Art. Obf. p. 1290

⁺ Obs. Acad.

It would be easy to multiply authorities, if these could prove any thing. Suffice it to say, that this is the prefent method of practice in France, Germany, and the Low Countries, established on what is there conceived to be the test of experience; in proof of which we need only look into M. Baudelocque, one of the latest and best of the French writers, and at this time one of the most popular teachers and practitioners at Paris. In his "Art des Ac-" couchemens," treating of the case where the child has only made its way partially through the uterus, he fays, that dividing the integuments of the lower belly is as manifestly indicated in cases of this kind, as in those where the child has pushed its way entirely into the general cavity. We can, he observes, conceive but too clearly to what danger we shall expose a woman in endeavouring to turn a child, of . which the greatest part has already passed into the cavity of the abdomen, and the rest remains flrongly grasped by the lacerated uterus. Some modern furgeons, he adds, lefs timid than Saviard and many others, have already, by gastrotomy, preserved the life of the mother, and, had they been called in time, would, he thinks, most probably have 3 A 2 fecured

secured that of the child also. In proof of this affertion, he quotes a case communicated in the Journal de Medecine for May, 1768, by M. Thibault de Bois, Surgeon at Mans, of a woman through whose uterus the infant had burst when the labour was far advanced, and every thing promifed a happy delivery. On the very same day M. Thibault, in the presence of four of his brethren, extracted the child, which was dead, along with the placenta, through an incision of the abdominal integuments. The woman recovered without any bad accident, was able to return thanks at church on the thirtieth day after the operation, and had continued in perfect health, though at the time of his writing the account she had not menstruated. M. Baudelocque farther adds, that he makes no doubt but the Royal Academy of Surgery will publish a similar case, communieated by a furgeon of Orleans, on whom they bestowed one of their lesser medals some years ago, he having been happy enough (and with perfect fafety to the mother) to fave, by this operation, a child, which, after a long labour, had burst into the cavity of the abdomen. The fame writer farther fays, that this operation is not only necessary to give a passage to the child,

child, but also to the blood and water extravasated in the lower belly. He considers it as a
much easier operation than the Cæsarean, and
the case as not more dangerous, as wounds in
the uterus, though made by rupture, are not essentially mortal, and do not require more care
than when made by a cutting instrument.
Speaking of La Motte and others, who have
extracted the child through a ruptured uterus,
by the natural passages, he says, "Although
"this operation is not always impossible, yet
he does not quote these cases as examples
that ought to be followed."

M. Jacob, in his Ecole Pratique des Accouchemens*, published in 1785 at Ghent, recommends this operation as the only thing to be done to fave both mother and child, when the latter has escaped into the cavity of the abdomen, and infinuates that in that part of Eurupe it has not been found dangerous .

M. Tenon, Member of the Royal Academies of Sciences and Surgery, and Surgeon to

^{*} Page 215.

May not the case mentioned in the London Medical Journal, (Vols. VI. and VII.) of the negro woman who performed the Casarean operation on herself, and an instance at Hamburgh, of its being performed by a bull's horn, shew us that in some constitutions this operation is not statal?

the Salpetriere Hospital at Paris, equally eminent for his learning and long experience, informed me, when lately in this country, that, in all extra-uterine cases, and in the greater part of those where the child has burst, either wholly or partially, through the uterus, the French accoucheurs constantly extract it through the divided parietes of the abdomen, and that they consider this as by much the safest practice. He is of opinion that the Cæsarean operation is less successful in this country than it is in France, because we defer it too long; and he affured me that fince their first practifing this operation, in the time of Bauhin, feventy-eight women have been faved by it at the Hotel Dieu of Paris. From this account, which I have repeatedly received from M. Tenon, added to those instances of success which I have had occasion to mention in my inquiry into the events of extra-uterine cases and ruptures of the uterus, I read with less surprise feveral recent accounts of extraordinary recoveries after operations scemingly the most defperate, which have been published in the French Memoirs and Journals. For instance, in the Journal de Medecine for August, 1786*,

[375]

we have an account of the total extirpation of the uterus; in the Memoirs of the Royal Medical Society at Paris *, another of the total extirpation of the ovarium; and in the fame work we have an account of two fuccessful Cafarean operations . In spite of all this, however, when I confider how very unfuccessful the Cæfarean operation has been in this island, under the best management, and when I farther confider how extremely hazardous we find all exposures, of the abdominal cavity, to the external air, to be, I own I think that even the fimpler excision I have been speaking of, ought never to be had recourse to but where there is reafon to hope, from the absence of inflammation. and other dangerous symptoms, that the mother's life may be faved by it; or where there is almost a certainty of preserving the child: as this expedient appears to me, while the natural paffages are undilated, to be not only a more probable method to fave the child, but even a lefs hazardous one for the life of the mother. And though it must be acknowledged that, in this country at least, the preservation of the mother feems most likely to be effected by abstaining

^{*} Vol. IV. page 296.

[†] Vol. II. pages 236 & 241.

from all violence, yet it may deserve consideration whether the chance this may give of a speedy cure, may not be preferable to that long-protracted misery, and distress, which the unhappy woman must undergo from a child remaining long in the cavity of the abdomen, even if she should be fortunate enough to survive its expulsion through the parietes of the abdomen, or by the intestines, so many instances of which I have had occasion to relate.

Though fudden ruptures of the cervix uteri may be often less dangerous than those near the fundus, yet there is one cause of tranverse division of the uterus, which, whether delivery be performed or not, is, I believe, always fatal-I mean where the texture of the uterus is destroyed, and inflammation and mortification brought on by the preffure, during labour, of the projecting process of the os facrum, or sharp ridges of the os pubis, or ilia, in a narrow pelvis, against the head or breech of the child: Of this I saw a very remarkable instance in August, 1786. A woman, with a narrow pelvis, had, at the full time, a breech presentation, and though she did not suffer the strong compressing pains of labour more than twelve hours, yet, at the end of that period, and before the os uteri was completely dilated, the whole whole fore part of the cervix uteri separated from side to side. This was owing to the preffure of the large breech of the child against the sharp ridges of the ilia and pubis. The child passed into the general cavity of the abdomen, and a foot presented.

In less than two hours after the accident the child was extracted, dead, and with no other difficulty than what was occasioned by the narrowness of the pelvis; but the woman survived the delivery only five hours.

The posterior part of the cervix uteri was found to be worn through by a large projection of the facrum, which was angular and sharp, but not so much so as the internal superior ridge of the os pubis and ilia, which resembled the edge of an ivory solder, and had cut the uterus through in the manner a ligature does a polypus.

In all cases where division of the uterus is occasioned by preceding compression and mortification, I consider the fate of the woman as determined before that accident takes place. This may explain how comparatively short a time some women can bear the compression of a head or breech in the narrow pelvis to what others can, and how sudden the sate of many

must be after such a rupture. This ought to lead us, if possible, to ascertain, as well as we can, in the earlier period of labour, not only the size, but the conformation of the narrow pelvis, and whether there be any sharp angles, in which case compression is always to be dreaded.

To mention that we are ever to watch attentively, and to obviate, by every possible means, all causes of inflammation during labour, or to fay that inflammation begun before or during labour, is always highly dangerous, and commonly fatal, is faying only what all experienced practitioners must have observed. But to awaken the attention of the unexperienced to the state of the pulse and concomitant symptoms, in laborious cases, is important, as we must often be determined by these as much as by the fituation of the child, what is proper to be done. If ever a woman has any chance from nature, in a ruptured uterus, it must be where no inflammation has preceded the accident; and the prevention of such irritation as is capable of exciting this, is the precise reason why I think her being let alone, or the dividing the integuments of the abdomen, is giving her the best chance.

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These observations being only offered with a view to the improvement of the practice of midwifery, I have still one farther caution to add, and that is with regard to a method proposed by several respectable authors for preventing ruptures of the uterus. They tell us, that when from the fenfation of exquisite pain in any one particular part of the uterus, or when there is any particular obstruction of the paffages which may probably give occasion to long-protracted, violent, and ineffectual throes, or when there is any thing that appears to us fo peculiar in the nature of the labour, or the constitution of the woman, (which it is allowed to be very difficult to describe) that shall induce us to suspect a rupture of the uterus likely to happen, we are directed in that case to precipitate the delivery by turning the child.

Now, besides the general objections, which always subsist against turning a child, where the head presents in a contracted uterus, after the waters have been some time passed off; as I presume the symptoms threatening rupture can never be observed, or even suspected, before the child is closely embraced by the strong contractions of the uterus, I should fear the attempt to dilate it, and turn the child in such

circumstances, would be precisely incurring the greatest danger of the very accident we mean to prevent.

Every body knows that to turn a child, in a strongly contracted uterus, is at all times attended with some danger of a rupture; how much more must it be so, when, from any preindicating symptoms, or circumstances, however strong, we can be led to suppose that a rupture is in danger of taking place. I myself know an instance where a surgeon, in attempting to grasp the seet of the child when the arm presented, happening only to close his hand in the uterus, sound the latter immediately give way. Though the woman was at the same instant delivered, and no very violent symptom immediately supervened, yet she died in a few days.

I am, therefore, clearly of opinion, that even if the presaging symptoms were more decisive and determinate than I think they ever can be, this method of prevention is too hazardous to be attempted; but, equivocal as they must be, I think it is still less to be justified, let the internal evidence be ever so strong.

I am still the more confirmed in this opinion by a recent case which happened in my own practice.

practice. A woman, with a well-formed pelvis, mother of two living children, when in a natural labour, at the full time, with a very large head prefenting, fereamed out, and complained loudly of an excruciating pain in one particular part of the left hypogastric region; at the same time that she seemed to be all over affected with spasms, so as to give me very serious apprehensions that she might either fall into convulfions, or fuffer a rupture of the uterus in that particular part. I, therefore, by cautious dilatation, and by affifting the effect of every pain with the vectis, in as fhort a time as I could, with fafety to the parts, delivered her of a large living child, and she recovered without the least accident. I think in any of these cases, with the head presenting, whilst the child is alive, we can be justified in promoting the labour only by a method fimilar to what I have mentioned, or by the forceps, if the head be within reach. If thefe fymptoms occur before the dilatation of the os uteri, bleeding, in plethoric habits, or warm bathing, and opium, in case of irregular spasin, may be useful. I can hardly suppose a case, with the head prefenting, in which it would be expedient to turn, after the waters have been paffed off long enough to allow the uterus to embrace closely the body of the child, unless in that of a very dangerous flooding, in cases where the funis presents, and its pulsation is perceptible, or where the uterine contractions are too inert to act properly in the expulsion of the child: in neither of which cases is the contraction of the uterus usually so strong as to render the necessary dilatation very dangerous.

I have undefignedly extended this paper to a length I did not think of when I began it; I must, therefore, delay some farther observations I have to make on ruptures of the uterus till a suture opportunity.

St. Martin's Lane, Sept. 20th, 1787.

III. An Account of a large Mass of Hydatids discharged from the Uterus. Communicated in a Letter to Dr. Simmons by Mr. B. Wilmer, Surgeon at Coventry.

RS. Oakes, of Longford, in the county of Warwick, aged forty-fix years, had a healthy child born about two years fince, and from that period, till the month of April last,

she continued in good health. I was then defired to visit her. She informed me that she had reason to believe she was between four and sive months gone with child; her menses, till lately, had been suppressed; her breasts were turgid, and discharged milk from the nipples; and there was an enlargement of the lower part of the abdomen. During the last sourceen days she had, at intervals, sloodings, which, now recurring more frequently, had reduced her strength much. Her countenance was pale and bloated, and a troublesome cough allowed her to get no sleep in the night.

I enjoined rest, directed a draught of tincture of roses, to which ten drops of laudanum were added, to be taken every six hours; and, at bed-time, she took a medicine composed of a solution of spermaceti with a small quantity of paregoric elixir.

On the following day I was haftily fent for, the messenger informing me that, unless I was expeditious, I should not find my patient alive. She had been seized with addition of pain and slooding, and, before I arrived, had been delivered of what her attendants called a false conception. It nearly filled a common-sized cham-

ber pot, and, upon examination, I perceived it was a mass of hydatids, of various sizes, but none of them were larger than a horse bean: they were perfectly round, and clustered together like a bunch of grapes, with this difference, that they did not adhere by a common peduncle, but the whole mass, wherever it was broke or cut through, appeared to be composed of them.

Mrs. Oakes was in bed, and so much reduced by the discharge she had suffered, and the fatigue she had undergone, joined to her general bad state of health, that I was extremely apprehensive for the consequences. The flooding, though diminished, still continued; pains of the abdomen, at times, returned; and on the following, as well as during several succeeding days, small bunches of hydatids were discharged from the uterus.

By means of a nourishing diet, the bark, cool air, &c., she began to recover her strength. At the expiration of a week no more hydatids were seen, and the discharge had nearly ceased. In a few weeks she was able to walk; her cough left her, and she is now as well as before her confinement.

Some years ago I visited a parient, with Mr. Cole, Surgeon, of this city, whose case was nearly similar to the above.

This case is described by Ruysch*, who supposes the hydatids are produced by a diseased state of the glands of a retained placenta; but in the above instances the mass discharged appeared to consist entirely of hydatids, connected by a mucous medium.

Coventry, Sept. 27th, 1787.

IV. An Account of a Case, in which a Part of the Femoral Artery was dilated in consequence of its being laid bare by a Wound, and which was successfully treated by obliterating the Cavity of the Artery, at that Part, by Compression. Communicated in a Letter to Dr. Simmons by Mr. Robert Kinglake, Surgeon at Chipping Norton, in Oxfordshire.

RICHARD Rooke, of Barton, in Warwickshire, aged thirty years, and of a robust constitution, was goaded in the thigh,

* Obf. 33 et 34

about four months ago, by a bullock. The wound was a lacerated one, and immediately opposite the middle part of the femoral artery, which very narrowly escaped division. This circumstance of the extreme proximity of the artery to the wound constitutes the groundwork of what appears in this case to merit observation.

On my first inspésting the wound, which was in a few hours after the accident had occurred, I found it filled with coagulated blood, visibly moving with the pulsations of the subjacent artery. From hence conceiving the perilous vicinity the artery held with the wound, I apprehended very dangerous confequences. I began, however, to encounter the difficulties by a copious blood-letting, and by well evacuating the bowels; a moderate compression. was also made on the artery, just below where the profunda is fent off, with a view to diminish the impulse of the circulation on the part of the artery connected with the accident, and to afford an opportunity for an increased quantity of blood to pass through the collateral branches: but notwithstanding these precautions, the part of the artery at the wound, from being deprived of an equal and usual refiftance

refistance from the superincumbent integuments, in twenty-four hours was dilated beyond the edges of the wound, which it completely filled up. On pressing the dilatation with my finger, the propulsive force of the heart felt incredibly strong, and required a forcible and steady pressure to resist the impulse. In this precarious state of circumstances, it seemed difficult to determine what course was most eligible; whether to remove the limb for a certain preservation of life, or, for the chance of preserving the limb, to involve the case in all the difficulties resulting from an intercepted and diverted circulation.

After no little hefitation, and finding the patient decidedly averse to amputation, I resolved on making a compression on the dilated artery that would approximate the sides of the vessel at that part, so as to induce an union, and consequent destruction of its continuity. This I was farther encouraged to attempt, from conceiving that the probably inslamed state of the arterial coats, in consequence of the accident, increased under the irritation of the necessary pressure, might insure as coalescence on the principle of adhesive inslammation. In conformity to this idea, I made a compression with

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an oblong button tourniquet, so applied as to make particular and concentered pressure. The dilatation yielded to the force employed, and remained quiet under the suppression. The obstacle given to the circulation was evinced by an immediate and total loss of pulsation in the ham. To co-operate in the intention of cure, I made a gentle pressure on the artery, from the part where it was dilated, nearly as high up as where the profunda goes off.

The effects of obstructed circulation now began to appear in their usual terrific form. The part of the thigh above the compression became much swollen, instamed, and extremely painful; feeling, to use the patient's own expression, as if the thigh was rending as under. The part of the extremity below the compression suffered a diminution of its natural heat, with a torpid feel, and was soon loaded with edematous tumesaction. The system, in general, also partook of the irritation, the functions of the body becoming deranged, and head-ach, bleeding at the nose, frequent sickness, and occasional vomiting, being excited.

After two days fearcely unvaried continuance of this deplorable fituation, the pulse became palpable in the ham, and a sensation of glowing warmth was now felt diffusing through the inferior part of the extremity; the swelling above the compression, together with the preternatural heat and pain, began sensibly to decrease; and the edges of the wound appeared tumid and digesting. This was on the third day from the application of the compression, which I judged to be too early a period either for the slackening or removal of the compress. I, therefore, allowed it to remain on for five days longer, during which time every thing continued progressively in a favourable train, without any formidable interruption.

On removing the compress, incarnation was observable in the wound, without the smallest appearance of an arterial tube. For security, a compress, moderately tight, was continued for a month, when the wound was closed with an indented cicatrix. The patient has ever since (now nearly three months) followed the daily labour of an husbandman, without any other inconveniencies than those of a more obtuse feeling in the leg and foot than is natural; an unusual sense of cold; and finding that, after long standing, the leg and foot become a little edematous. The swelling, however, goes entirely down by the morning, after he has lain

a few hours in bed. But these are obvious effects of a want of arterial vigour in the extremity, and will, I should suppose, be surmounted when the collateral branches are rendered more capaciously pervious.

This case may serve as an admonition to furgeons not to think indifcriminately of the danger of arterial dilatations, but always to connect them with their causes; for certainly a very obvious difference exists, in the degree of hazard, between a dilatation ensuing a recent external accident, and one originating from a loss of power or offific inaction in the coats of an artery. In the former, the dilatation results from mechanical circumstances, the artery, confidered abstractedly, remaining found; in the latter, it is the confequence of weakness, or altered structure, the extent of which cannot be defined; the mode of treatment, therefore, which may be applicable to the former of these cases, and which, in the instance I have related, was fuccessful, would, in the latter, be of very dubious efficacy, as the artery, if compressed at the dilatation, would, from its deficient power, most probably vield to the additional impulse in another part, and frustrate the cure, This view of the subject clearly explains a disfimilarity

fimilarity that at once shews the propriety of this mode of treatment in the one case, and as clearly elucidates the extreme incertitude and probable insufficiency of its employment in the other. Should the event of the case I have related tend to ensorce an imitation of the practice in similar circumstances, and be productive of as happy an effect, the success will be not less creditable to surgery than congenial with the seelings of humanity in superseding the truly-horrid alternative—amputation.

Chipping Norton, Oct. 13th, 1787.

V. Case of a Fracture of the Sternum. By Mr. John Hale, Surgeon to the New Finsbury Dispensary.

A LTHOUGH fractures of the sternum are described by every writer on the accidents to which the bones are subject, yet they appear to have seldom occurred, even to the oldest practitioner. All those authors whom I have had an opportunity of consulting, very sully describe in what manner this accident may happen, and as sully prescribe the rules to be observed.

observed in the treatment of it; but they feem to have copied from each other, without adducing any proofs to corroborate their affertions. Du Verney, in his excellent Treatife on the Diseases of the Bones, is the only writer (that I have met with) who enters fully and circumstantially into fractures of this part. He mentions three cases which had occurred to him, two of which proved inftantly fatal, and the third recovered, but the patient remained an invalid during the rest of his life. He likewife afferts, that "all these diseases are mortal; to some at the instant of the blow or fall, and to others fome days after: never-"theless," he adds, "there have been pa-" tients whose constitutions have held out, and " have been cured "." I can only regret that he gives no information where those cases are recorded.

C A S E.

John Oates, aged thirty-eight, by trade a cabinet-maker, being in company with some

^{*} English Translation of M. Du Verney's Treatise. 8vo. London, 1762: p. 92.

friends at a tavern, and drinking freely, a difpute arofe, which terminated in blows, and he was unfortunately thrown down with fuch violence on the edge of a chair, as to cause a fracture of the sternum, about four inches above the ensisorm cartilage.

Being carried home, a neighbouring apothecary was fent for, who ordered fome draughts to be taken, and a volatile liniment to embrocate the part. The fymptoms, however, foon became alarming; these were great pain and difficulty in respiration, cough, and oppression on the lungs. These complaints were suffered to increase, without any means being used to alleviate them, for the space of a week; although he often spoke with certainty of his breast being broken, and said he could "feel" the bones jar against each other."

Obtaining no relief, and being positively told that his complaint was only a bruise, he dismissed his apothecary, and applied to the New Finsbury Dispensary, on Tuesday, the 23d of January, 1787. He was immediate y visited by Dr. Skeete and myself, with Mr. Haighton, who happened to call on me that morning. On examination, we perceived that a fracture had taken place as described above, but how much Vol. VIII. Part IV.

of the bone was depressed, or how deep the depression might be, we could not readily ascertain, owing to an inflammation which occupied the inferior and middle part of the sternum, and which seemed hastily advancing to suppuration. His pulse was hard and full, the cough frequent, and attended with such distress and anxiety to the patient, that he said he should be perfectly well if the cough could be stopped; for at that time he could plainly feel the broken edges of the bone grate on each other, the irritation of which was almost insupportable, and prevented his taking any rest.

We immediately took away fixteen ounces of blood, which was much inflamed. A laxative mixture was ordered to be taken occasionally; an emulsion of spermaceti, with nitre and tinct. thebaic, every three hours; and every other means was used to obviate the effects which we imagined would be the consequences of such an accident. On the day following the pulse was rather softer, and the respiration not quite so laborious. Ten ounces more of blood were taken from him, which had the same inflammatory appearance as before. The inflammation on the sternum was now more circumscribed, and evidently shewed that some pus

was already formed. The laxative medicine was ordered to be repeated, and thirty drops of tinct thebaie. to be taken at night.

The fymptoms continued much the same till Saturday, the 27th of January, when Mr. Cooper, Surgeon to Guy's Hospital, favoured me with his company, and was of opinion that the abscess on the sternum should be immediately opened. About fix ounces of pus were difcharged. On passing my singer to the bottom of the wound, I expected to have discovered the broken portion of bone, but did not, probably owing to the parts having become thickened in eonsequence of the preceding inflammation. The fracture, however, was evident to one fense, though not to the other; for, on the patient defiring us to place our ear on the wound, we could hear the edges of the bone grate on each other at every inspiration. The pulse being still full, it was thought neeessary to take away fix ounces more of blood. had no rest this night, the cough being inceffant.

On Sunday, the 28th, his eountenance appeared much dejected, the skin hot, but the pulse calm; I ordered the opiate to be increased to seventy drops of tinct. thebaic. and applied a bandage, or rather a girt, (such as I use in 3 D 2

fractures of the ribs, and which is made to buckle to the degree of tightness that may be requifite) in hopes of being able to confine the motion of the sternum, and thereby prevent the irritation which the fracture produced. [intended to have applied this bandage when I first visited him, but it was thought that if much pressure was thrown on the ribs, it might probably cause the inferior broken part of the bone to protrude through the inflamed integuments, and be productive of much danger; the bandage was therefore deferred till the abfcefs was opened, and the bone not being evident to the touch, we had less to fear from the application of a moderate pressure. He experienced much relief in consequence of the bandage being applied, the cough was greatly abated, the opiate procured a found fleep, and the bone was not troublesome in inspiration; the pulse was perfectly calm, and the wound discharged a healthy pus. He was now ordered fome mutton broth, having hitherto been confined to watergruel.

From this time, to Monday the 6th of February, the symptoms indicated much danger; he sweated profusely, coughed incessantly, and what he expectorated was often tinged with blood.

blood. He took liberally of a decoction of bark with elixir of vitriol, drank warm milk every morning, and used such nourishing articles of diet as were directed by Dr. Skeete. This plan feemed to fucceed, for, from the 6th to the 12th of February, the fweats were much diminished, and the cough less frequent; but the wound discharged a sætid ichor in great abundance, which proceeded from a finus extending above and for some space round the fuperior part of the wound. We were now of opinion that this ichorous discharge might be occasioned by the edges of the broken bone; if fo, it became advisable to make a farther opening, to endeavour to reach the foundation of the mischief, and then pursue such a course as might be indicated from examining the condition of the parts.

This, however, was delayed till Saturday the 17th of February, as for fome days we had pleafed ourselves with an idea that the parts would unite independently of our interference, especially as the discharge from the wound was become thicker, (Dr. Skeete having added gum myrrh to the decoction of bark); but we were unhappily disappointed in our expectations; and as no time was to be lost, I informed the patient

of the plan which, on confultation, we had agreed to follow, viz. to make an incifion down to the bone, to examine its condition, and, if necessary, to remove whatever part of it might, in our opinion, be an obstacle to a perfect union. He readily assented to whatever might be judged expedient for his relief; not on his own account, having suffered so much that life was become a burden, but for the sake of his wife and five infant children, whose substitute depended solely on his labour.

I made an incision from about an inch above the edge of the old wound, and continued it to the bottom; the knife grated on the bone, and the inferior part became evident to the touch, though covered externally with a fmooth granulation. It now appeared that the direction of the fracture was not strictly transverse, but a little oblique, being somewhat lower on the right fide than on the left; but the natural junction of the cartilages of the ribs, immediately above and below the fractured part, remained entire. I paffed my finger into the cavity made by the dilatation, and felt the internal furface of the sternum rough and irregular. We now could only conjecture that some degree of exfoliation would ensue; but in all probability the consequence of this operation

operation might prove fatal by caufing that irritation often consequent to the exposure of cavities. Theory certainly justified us in these conclusions; but practice has happily convinced us that, notwithstanding these discouragements, there was still a method left to prevent what we had so much reason to sear. The fractured portions of the bone were not denuded in every part; both the superior and inferior portions were covered with granulations: it then became an object to endeavour to promote an union of those parts by incarnation, similar to what occurs in compound fractures, in which light it might now certainly be considered.

I must here observe, that on the day following I found him much better, he became easier after the operation, coughed but little, and slept the greatest part of the night without taking the opiate. This was the first natural sleep he had enjoyed since the accident happened, for the opiates had only served to palliate the cough, without procuring any refreshing sleep, although he generally took one hundred drops of tinct thebaic. The expectoration also appeared more frothy, and he had no dissiculty in discharging it from the lungs. This amendment however, was but temporary; for, from the 17th

to the 24th of February, the opiates were again obliged to be given. Our attempts to procure an union of the parts proved abortive, and the inferior edge of the bone protruded through the wound at every inspiration, and consequently exposed that cavity which the preceding inflammation and pressure had undoubtedly produced.

There feemed no prospect of any exsoliation; I therefore omitted the former bandage, as it appeared to have no power to answer the intention we had in view, and passed a common roller round the inferior part of the steinum; the pressure of this brought the lower portion in contact with the upper, and we had the pleasure of seeing an union of the soft parts effected in a few days. The sweats from this time totally ceased, and the cough was not troublesome. I removed him to Islington for the benefit of the air; there the cough entirely left him, and he slept without taking the opiate.

When he attempted a deep inspiration, he felt a small pressure on the fractured part, and also on the right side of the wound; which side was apparently enlarged, and felt as if the cartilages of the ribs had received some injury from the fall; but upon a more attentive examination

mination was found to be owing to a depression of the upper part of the sternum, together with the cartilages of the ribs. He complained that the air was too sharp for him, and (to use his own expression) "felt like vinegar in his " nostrils;" indeed this was so much the case, that if he stood at the window when open, or attempted to walk out, the air instantly caused him to fneeze violently, which gave great pain to the fractured part. I was therefore obliged to remove him from Islington, where he only continued four days; and for two or three nights after he returned home the cough again became violent, fo that I was under the necessity of repeating the opiates. As the wound healed the cough abated, and his only complaint was that of great weakness, and a total inability to use his arms with any freedom of motion. He could floop to buckle his floe, and could take up any weight, but was utterly unable to perform any lateral motion.

During the month of March he was perfectly free from complaint. The enlargement, related to have been on the right fide of the wound, was much leffened, but an abfects formed on that fide, immediately on the breast, which broke on Friday the 30th of March. It apvol. VIII. Part IV. 2 E peared

peared quite superficial, and to have had no connexion with the original injury.

In April, the wound on the sternum was healed to about the fize of a fixpence; and from this a vast discharge was daily evacuated. Suspecting fome finus, I paffed the probe, and found one, which extended about two inches on the right fide between the two inferior cartilages, directly above the enlargement already mentioned. This finus was laid open, and continued discharging till the beginning of August, when it was proposed to apply a caustic on the part, from the action of which I not only expected the exfoliation of any difeased part to be facilitated, but also a greater degree of excitement in the adjacent living parts for the purpose of generating a bony union. The event fully answered my expectation, and the action of the caustic laid bare the fractured portions of the bone, the fuperior edge of which was greatly depressed, and the intermediate space filled with a kind of ligamentous substance, but without any offific union of the parts. It was curious to observe the process which nature was daily executing, in order to fill up the vacuity; at every dreffing fome new excitement was perceived; increased vascularity * in the living portions of bone, by which the carious part became more separated; and granulations arising from the surrounding soft parts. On the 10th of October the exsoliation from the inserior part took place; the portion of bone was but small, healthy granulations being substituted in its place.

We affished the patient with an elastic truss, which proved of so much service as to enable him again to follow his business of a cabinet-maker. This truss makes an equal pressure on each side of the breast, and supports the sternum in such a manner, that if he takes it off, he says, he seels "as if his inside is falling in "pieces." Without it, he is incapable of performing any lateral motion.

* In order more fully to explain what I mean by an "increased vascularity," it is necessary to observe, that when the slough (which the action of the caustic had produced) was separated from the sternum, a very large portion of the inserior part of the bone appeared to be entirely deprived of the living principle; but fortunately this was not the case: every day's inspection fully proved it, by that portion becoming more and more florid; and by the assistance of a glass we could plainly discover new vessels shooting in a transverse direction through the offecus sibres. I therefore trust that the term of "increased vascularity" is not misapplied, and I am at a loss for any other to express my meaning more intelligibly.

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The wound healed, without any interruption, and was perfectly cicatrized on the 23d of October.

The following observations are such as will naturally suggest themselves on an attentive consideration of the above sacts:

First. That the case was attended with considerable danger throughout the greater part of its progress, but from very different and even opposite circumstances at different periods. In the beginning, the symptoms of inflammation in the thorax feemed to be fo general and violent, that without the free use of the lancet, affifted by dilution and the antiphlogistic regimen, it is probable that a fatal termination would speedily have ensued; but the only method by which this could be prevented, doubtless, assisted in inducing that state of debility and hectic fever, under which the patient was afterwards in danger of finking, and which required the liberal exhibition of bark, elixir of vitriol, myrrh, and fuch nourishing articles of diet as were judiciously prescribed by Dr. Skeete. The fame thing happens in many cases of disease which fall under the care of the furgeon; and the present instance is a strong illustration of the necessity of a particular attention being required to the flate of the conftitution, as well as to the condition of the difeased part.

Secondly, It may appear extraordinary, that notwithstanding the frequent exposure of a cavity, which appeared when the broken edges of the bone were feparated, during the alternate motions of inspiration and expiration, that this exposure was not followed by any repeated attack of inflammation, or by any effusion of pus into the cavities of the thorax, though we had more than once sufficient reason to apprehend fuch effects, especially when the expectoration affumed a purulent and bloody appearance, with fymptoms of hectic fever. The event, therefore, feems to prove that adhesions must have taken place between the lungs and pleura, in the neighbourhood of the injured part, fo as to have completely prevented any fuch effect.

Thirdly, After some months the treatment was almost entirely confined to the part; the healing of the wound having been prevented by the state of the bone underneath, as has been already mentioned.

Fourthly, From the fensation which the patient experiences at present, I have every reason to conclude that the loss of substance, which the sternum has sustained, is supplied by granu-

lation only; and whether nature will in this case, as in many others, restore the part to its original state, by a bony deposition, time alone will be able to discover.

Ostober, 1787.

P. S. Since the foregoing account went to the press, I have read a case of fractured sternum, in the Edinburgh Medical Commentaries*, by Mr. George Borthwick, Surgeon to the fourteenth regiment of Dragoons. In many instances the symptoms agreed with those mentioned in the case I have described, particularly the grating noise in the time of respiration. Mr. Borthwick having been immediately called in, prevented the train of dangerous symptoms which unfortunately besel my patient. The account being drawn up with great precision, I refer my readers to the book itself for farther information.

The addition of this postscript affords me an opportunity of saying, that my patient called on me at the Dispensary, on the 30th ult. and informed me he had gained so much strength within a few days, as to be enabled to

[407]

perform the most laborious part of his work without the assistance of the truss.

November, 1787.

VI. A Case of Emphysema. Communicated in a Letter to Dr. Simmons by Mr. John Darby, jun. Surgeon at Diss, in Norfolk.

OBERT Roper, an industrious farmer, of the parish of Wortham, in the county of Suffolk, aged feventy-five years, had the misfortune, in affifting to unload beans the latter end of September last, to fall from a waggon, and strike his right side against a ladder. As the accident happened late in the evening, and the patient was able to reach his house without experiencing much pain, he supposed that the injury received was of no material confequence, and that its effects would be eafily obviated by resting a few hours in bed. Early the next morning, however, he was feized with a confiderable degree of anxiety about the breaft. and his respiration became difficult and laborious. I was defired, therefore, to visit him, and, upon examining the part which had fuftained the injury, was furprifed to find a tumor of an enormous fize fituated on the pectoral muscle. This tumor, at first fight, I conjectured to be occasioned by extravasated blood, but, on pressing it, sound it produced a crackling noise, which, with the rapid progress of the swelling, together with the slatulent seel of the part, induced me to suppose that it was emphysematous, and occasioned by a fractured rib, which had pierced the pleura, and the spiculæ of which had wounded the lungs. Upon a more minute examination, I sound all the cellular membrane distended with air on the neck and cheek of that side on which he had received the injury.

To prevent inflammation, I bled him, and was aftonished to find how fast every part of his body partook of the emphysema during the time he underwent the operation. Notwithstanding I had never seen an emphysema, except in gangrenous parts, I recollected to have perused a case attended with similar circumstances, published by Dr. Hunter in the second volume of the Medical Observations and Inquiries; and I resolved to pursue the method of treatment there recommended. I immediately, therefore, with the shoulder of my lancet, made an incision, two inches long, through the skin and cellular

cellular membrane, over the fractured rib. The air rushed out immediately, and continued to be heard to do so for some considerable time, just as it does when forced through the mouth of a pair of bellows. I dipped my hand in some oily embrocation, and continued to stroke the surrounding parts with it for some time, by which means the tumor was considerably diminished; I then dressed the wound superficially, and applied a napkin, dipped in a cold mixture of brandy and vinegar, tightly round the breast, and over that the scapulary bandage.

The patient complained of a violent pain in his fide, and coughed frequently, but did not raise any blood. To alleviate these symptoms, I directed pectoral medicines, with small doses of tinct. thebaic, to be frequently given, and a liberal use of diluting liquors.

Upon visiting him the next morning, I was informed he had passed a good night, but found that more air had escaped from the lungs into the cellular membrane, so as to distend the opposite side; and his eyelids were so much swelled, that he had not been able to see for several hours. The penis and scrotum likewise partook of the distention, which was now become Vol. VIII. Part IV. 3 F gene-

general, and exhibited an appearance similar to that of a stuffed body. Under these circumstances, I did not hesitate to make more incisions, and punctured the skin of the opposite breast, of the scrotum, and penis; and afterwards of the eyelids, by which means he was immediately enabled to see.

I defired the nurse to remove the dressings in the evening, and to press out the air as much as possible by rubbing the surrounding parts, and it was wonderful the quantity of air that was constantly emitted.

The following day I was pleased at finding a considerable diminution of every part; but as the patient still breathed with difficulty, I was induced to have recourse again to venæsection. This had a good effect, and at the end of ten days I had the pleasure of finding him quite well, and he now enjoys as good health as he has experienced for several years.

Difs,
Nov. 18th, 1787.

VII. Two Cases of Fracture of the Scull; with Remarks. To which is added a Case of a Wound of the Head that terminated fatally; with an Account of the Appearances on Dissection. Communicated in a Letter to Dr. Simmons, F. R. S. by Mr. Edward Ford, Surgeon of the Westminster General Dispensary.

CASE I.

N the 25th of June last, T.S. a healthy boy, aged thirteen years, and living at No. 96, in Oxford Street, fell from a one-pairof-stairs window upon the pavement. He was immediately taken up, fenseless, and I saw him about twenty minutes after the accident, when he was quite stupid, comatose, and bleeding at the ears and nofe. His head was immediately shaved, and I found a swelling projecting on the right fide, and fituated on that part of the frontal bone which is adjacent to the coronal future. This was opened to the extent of about two inches, and a fracture discovered, circumfcribing a portion of the os frontis, of the fize of a shilling, and slightly depressed. This fracture feemed to extend every way; backwards, across the coronal future to the right 3 F 2 parietal

parietal bone; on the same side towards the os temporis; and on the left side in the direction of the coronal suture.

The hæmorrhage, from this operation, was very profuse, and he partially recovered his senses. Some blood was also taken from the arm, and opening medicines were administered. The next morning he was better; his pulse, though oppressed, was regular, and he was able to articulate a few words.

Confidering the apparent extent of the fracture, I could not remain fatisfied with what had been done; and having obtained the confent of the patient's father to make some farther opening, I was forry to find, that, by pursuing the line of the fracture on the right fide, across the coronal future, into the parietal bone, and from thence over the fquamous future, cutting through a great portion of the temporal muscle, I could not follow it on this fide to its full extent, as it perceptibly led towards the basis of the scull. On the left side I laid bare the fracture, and traced it into the coronal future, which I found completely separated from its indentation. The incifion was then continued in the direction of that future to the distance of about two inches from the fagittal future.

Confidering

Confidering now the great extent of the wound, and the little probability of a fuccefsful termination of the case, I made no farther opening on the left fide, though the coronal future was plainly felt disjointed, and a feparation of the bones could be perceived quite down to the ear; but contented myself with farther enlarging the wound on the right fide, where the principal mischief seemed to be feated. In profecuting this operation, though two fuch unfortunate circumstances occurred, as the feparation of a future, and a fracture, which, from its course, could not be traced to its utmost extent by the knife, I had the fatisfaction to find there was no extravalated and grumous blood upon the dura mater, where the future was disjointed; the extravafation feeming to be confined to that part of the membrane which had obviously received the first impression from the fall.

The benefit derived from this operation was fo great, that feveral days elapfed before any farther affiftance feemed necessary. Care was taken to keep open the bowels, and the usual antiphlogistic regimen was adopted.

The patient gradually recovered his fenses, so as to give rational answers; but his pulse

was very quick, and he had frequent startings. This determined me, on the eighth day, to make two perforations with the trephine on the upper part of the os frontis, by which means I was enabled to remove the depressed portion of bone. At the part where the trephine was applied, the dura mater looked very well, but some grumous blood was found lodged under the depression.

From this time the greater part of the bad fymptoms disappeared, and for a fortnight the patient seemed to mend, but he did not gain strength. At the end of three weeks colliquative sweats came on; the startings returned; the discharge from the wound became offensive; and the periosteum on the lower part of the parietal bone, near the squamous suture, separated from the cranium.

A liberal use of bark and cordials having been found insufficient to obviate these symptoms, a new operation seemed necessary; and in this opinion I had the concurrence and assistance of Mr. John Howard, Surgeon, and of Mr. Hodges, the patient's Apothecary. Two large perforations, therefore, were now made, and a very considerable quantity of sætid pus was discharged from under the scull; the dura mater

mater being in so sloughy a state, that the brain became exposed. The utmost care was taken to obviate costiveness, and the bark was still administered in large doses.

In a few days appearances mended. The discharge became less settid, and decreased in quantity. The wounds had a florid appearance, and, particularly that on the dura mater, granulated well. The patient's strength daily increased; his appetite mended; his sleep became undisturbed; his mental faculties were soon quite restored; and his wound is, at this time, quite cicatrised.

REMARKS.

The reflections that arise from this case are very obvious: it is one of the many which elucidate the well-known doctrine, that the mischief arising from fractures of the scull is not occasioned merely by the extent of the fracture, or by the large openings made in the scull, either by the nature of the accident, or by the trephine; since the inconveniencies in this case, as well as in others, were instantly removed, when the pressure (occasioned first by extravasated blood, and afterwards by pus) was removed from the dura mater. It should likewise

likewise be remarked, that the suppuration did not take place in a part immediately contiguous to the fracture, but under a capillary fissure at some distance from it.

These are well-known facts, illustrated by daily experience; but I hope this case will be of still farther service in administering comfort to the practitioner in similar situations. A blow, so violent in its effect as to occasion a complete separation of a suture, has been considered as a satal, or, at best, as a very dangerous, accident. To this, in the case I have related, was added another circumstance equally alarming, which was a fracture extending from one side of the head to the other, obviously in a situation where it was impossible to give it the advantage of a dilated wound, and of course it was incapable of receiving the assistance of the trephine.

C A S E II.

E. Watson, a child three years old, fell from a window two stories high in St. Martin's Lane. She was taken up immediately, and appeared to have lost her senses about a minute. The following day she was brought to the Westminster General Dispensary. She was at this time healthy

healthy and lively, running about, and purfuing her usual pastime, as if no injury had been received. Her pulse was regular, and ker appetite good; but there was a swelling on the back part of the head, seemingly occasioned by extravasated blood on the scull.

The total absence of any symptom of danger, for nearly three weeks, seemed to corroborate the opinion I had formed of the tumor; but at the end of that time, as it did not subside, it was opened, and I discovered a fracture, without depression, extending from one parietal bone to the other, across the sagittal suture.

Two table-spoonfuls of clear lymph were discharged from the wound. The dura and pia mater were both ruptured; and a small portion of the brain was compressed between the edges of the fracture, which were separated from each other to a considerable distance. The fracture was traced to its extremities, about three inches and a half in length; and there was no appearance of grumous blood or of matter pressing on the brain.

The only circumstance in the treatment of the wound worth noticing was, that for four or five days there was a discharge of clear serous sluid, so copious as to make it necessary

Yol. VIII. PART IV. 3 G to

to change the bandages every two hours. It was not that bloody ferum which usually moistens the dreffings after an operation, but it was perfectly limpid, seeming to be an increased secretion from the surface of the brain.

The patient recovered quickly; and the feparation of the bone is still to be felt.

REMARKS.

Injuries of the head, producing extravasation of blood on the cranium, are well known to bear such a resemblance to fractures, with depression, that the most accurate touch is liable to deception. From the present case it would appear, that the total absence of any bad symptom is not a sufficient reason to forbear an examination of the tumor, when a sufficient time has been given for absorption: for though every circumstance in this case proved favourable, it is reasonable to suppose, that, had the operation been longer deferred, such symptoms might have taken place as would have rendered the cure very uncertain.

This case, like the preceding one, is a proof of the little injury done to the constitution by fractures of the scull, when no compression takes place on the brain or its membranes. Case of a Wound of the Head that terminated fatally; with an Account of the Appearances on Dissection.

A poor boy, about fix years old, as he was standing on a chair, fell backwards on a glass bottle, and received a wound on the back part of his head. At the time of the accident, and when I saw him, soon after it, he was perfectly sensible.

The scull was bare, and I thought, upon examining with the probe, that it was fissured. The wound was, therefore, dilated, and I found that it was situated on the upper angle of the occipital bone near the lambdoidal suture; what I had conceived to be a siffure appearing now to be, as it were, an incised wound, on the bone, made by the glass.

The fecond day after the accident, a fever coming on, his head was shaved, but no marks of injury appeared, except a slight elevation of the integuments on the lest parietal bone, at which part an incision was instantly made, but without discovering any injury of the scull.

The patient was not delirious; neither had he any comatose symptoms, or sickness, or bleeding from the ears or nose. His appetite

3 G 2

was good, but he was very reftless and uneasy, jumping up continually from the bed. On the fourth day an erysipelas began on the forehead, and daily increased, spreading to his face, and from thence to the breast; his pulse at the same time being very weak and rapid.

During the first ten days the antiphlogistic plan was steadily pursued. He was bled; opening medicines were administered; and afterwards antimonial wine, with thebaic tincture.

During the last four days of his life rigors came on in quick succession, and the erysipelas continued to spread, accompanied with great symptoms of debility. The bark was now given; his medicines and diet were of a more cordial kind; and blisters were applied to his back and legs.

Mr. Adair Hawkins, and Mr. John Howard, faw this patient with me, and contributed their affishance.

On the fourteenth day he died, and the following day I had an opportunity of opening the body. The perioranium adhered every where to the fcull, but its attachment feemed less firm than usual. In sawing through the cranium, wherever the saw happened to wound the meninges

ninges of the brain a clear water iffued forth, and, upon removing the arch of the cranium, about an ounce more of the fame fluid was collected. The dura mater was every where in a healthy state, adhering strongly to the scull; and the wound made on the occipital bone had not penetrated through its substance.

There was nearly a table-spoonful of water in the ventricles of the brain; and, on removing the brain from the basis of the scull, two ounces more of water were collected, that seemed to have been effused between the dura and pia mater. A small quantity was also obtained from the theca vertebrarum, by holding the body with the head downwards.

Every part of the brain was in a healthy ftate; as were also the thoracic and abdominal viscera.

Of diseases of this kind, subsequent to injuries of the head, there are, I believe, instances upon record; but as such diseases do not frequently occur, I statter myself the case I have now communicated to you may not be deemed altogether useless.

The cases which require the affistance of the trephine are, in general, clearly marked; but in the present instance the symptoms were not such

fuch as led me to confider them as arifing from blood or matter pressing on the encephalon.

Golden Square, Nov. 26th, 1787.

VIII. An Account of the Cultivation and Preparation of Aloes, in the Island of Barbadoes; in a Letter from L. Millington, Esq. to Joshua Steele, Esq. Communicated to Dr. Simmons by Sir Joseph Banks, Bart. P. R. S.

HE lands in the vicinity of the fea, that is, from two to three miles, which are rather subject to drought than otherwise, and are so stony and shallow as not to admit of the planting of sugar canes, with any prospect of success, are generally sound to answer best for the aloe plant. The stones, at least the larger ones, are first picked up, and either packed in heaps, upon the most shallow, barren spots, or laid round the field as a dry wall. The land is then lightly ploughed, and very carefully cleared of all noxious weeds, lined at one foot distance from row to row, and the young plants set, like cabbages, at about five or fix inches from each other.

This

This regular mode of lining, and fetting the plants, is practifed only by the most exact planters, in order to facilitate the weeding of them, by hand, very frequently, because if they are not kept perfectly clean, and free from weeds, the produce will be but very small.

They will bear being planted in any feafon of the year, even in the drieft, as they will live on the furface of the earth, for many weeks, without a drop of rain. The most general time, however, of planting them is from April to June. In the March following the labourers carry a parcel of tubs and jars into the field, and each takes a slip or breadth of it, and begins by laying hold of a bunch of the blades, as much as he can conveniently grasp with one hand, while with the other he cuts it just above the surface of the earth, as quickly as possible (that the juice may not be wasted), and then places the blades in the tub, bunch by bunch, or handful by handful.

When the first tub is thus packed quite full, a second is begun, (each labourer having two) and, by the time the second is filled, all the juice is generally drained out of the blades in the first tub. The blades are then lightly taken

out, and thrown over the land, by way of manure; and the juice is poured out into a jar. The tub is then filled again with blades, and fo alternately till the labourer has procured his jar full, or about four gallons and an half of juice, which is often done in fix or feven hours, and he has then the remainder of the day to himself, it being his employer's interest to get each day's operation as quickly done as possible.

I should observe, that although aloes are often cut in nine, ten, or twelve months after being planted, they are not in perfection till the second and third year; and that they will be productive for a length of time, say ten or twelve years, or even for a much longer time, if good dung, or manure of any kind, is strewed over the field once in three or four years, or oftener if convenient.

The aloe juice will keep for several weeks without injury. It is, therefore, not boiled till a sufficient quantity is procured to make it an object for the boiling house. In the large way, three boilers, either of iron or of copper, are placed to one fire, though some have but two, and the small planters only one. The

boilers are filled with the juice, and as it ripens, or becomes more inspiffated, by a constant but regular fire, it is ladled forward from boiler to boiler, and fresh juice is added to that farthest from the fire, till the juice in that \ nearest to the fire (by much the smallest of the three, and commonly called by the name of tatch, as in the manufactory of fugar) becomes of a proper confistency to be skipped or ladled out into gourds or other small vessels used for its final reception. The proper time to skip or ladle it out of the tatch is when it is arrived at what is termed a refin height, or when it cuts freely, or in thin flakes, from the edges of a fmall wooden flice, that is dipped from time to time into the tatch for that purpose. A little lime water is used by some aloe boilers, during the process, when the ebullition is too great.

As to the fun-dried aloes, (which is most approved for medicinal purposes) very little is made in Barbadoes. The process is, however, very simple, though extremely tedious. The raw juice is either put into bladders, left quite open at top, and suspended in the sun, or in broad shallow trays of wood, pewter, or tin, exposed also to the sun, every dry day, until all the sluid parts are exhaled, and a perfect Vol. VIII. Part IV.

refin formed, which is then packed up for use or for exportation.

Barbadoes-River Plantation. May 20th, 1787.

CATALOGUE OF BOOKS.

1. A Collection of Engravings, tending to illustrate the Generation and Parturition of Animals, and of the human Species. By Thomas Denman, M. D. Licentiate in Midwifery of the College of Physicians. Johnson, London, 1787.

2. Principles of Anatomy and Physiology. By John Aitken, M. D. &c. 8vo. Murray,

London, 1787. 2 Vols.

3. Delle Febbri, che fi dicono putride; difcorso di Giuseppe Pratolongo, seguito da due Disfertazioni fulle febbri, che furono epidemiche nella città e territoria di Genova l'anno 1741, 1742, e 1743. 8vo. Genova, 1786.

4. Methode de Nomenclature chimique, proposée par M. M. de Morveau, Lavoisier, Bertholet, et de Fourcroy. On y a joint un nouveau Système de Caracteres chimiques, adapté a cette Nomenclature, par M. M. Haffenfratz et

Adet. 8vo. Paris, 1787.

5. Abhandlung von der Krankheiten der Knochen; i. e. A Treatise on the Diseases of the Bones. By J. F. Boetteker, M. D. Physician at Berlin. Part I. 8vo. Koningsberg,

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6. La Vie de l'Homme respectée & desendue dans ses derniers momens; ou Instructions sur les soins qu'on doit aux morts & a ceux qui paroissent l'être; sur les sunerailles & les sepultures. Par M. Thiery, Medecin Consultant du Roi, &c. 8vo. Paris, 1787.

7. Analyse des eaux thermales de Vinay, avec des Observations sur les Insectes microscopiques qui y sont contenus, ainsi que dans leur mousse; par M. Fontana, Maitre en Pharmacie, Membre de l'Academie Royale des Sciences de Turin, et sous Secretaire perpetuel de la Société d'Agriculture. 8vo. Turin, 1786.

8. Differtatio Inauguralis phyfico-medica de Aeris fixi ac dephlogisticati in Medicina usu. Auctore Joann. Henrico Mensching, Suerino-Me-

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[428]

I N D E X.

Α.	I	age
CADEMIE des Sciences, Extraits des Registres,		, 319
Ainslie. Joannes, de Temperamentis, -	-	314
Aitke Dr. Jol.n, Principles of Anatomy, -		426
Aloes, Preparation of, in Jamaica and Barbadoes, describe	d, 219	, 432
Amyot, Jacques, Regles de Santé de Plutarque,	-	206
Anima's, Effay on their Pr pagation and Dispersion,		312
Arfenic, C. servations on its Life in Intermittents,	-	191
В.		
Bachmetiev, G. de variolis inferendis, -	-	107
Baldini, M. Maniere d'Allaiter les Enfans, -		211
Bell, Andrew, System of Anatomy,		312
Berg, P. U. de Medicina Africorum,		204
Berkenhout, Dr. Reply to a Pamphlet by, -	-	105
Betham, Campbel, de Diarihæa,		315
Bindheim, J Philosophischen Pharmakologie, -		212
Birnstiel, F. H. Dysenteriæ Epidemicæ Historia,	-	317
Bl ckburne, Dr. W. Account of a diseased Uterus,	-	60
Blizard, W. on the external Use of Emetic Tartar,	-	57
, Description of the Tourniquet,	-	200
, on the Danger of Bell Metal in Pharm	acy,	201
Boeckmann, J. L. on medical Electricity, -	-	208
Boekmer, G. R. Bibliotheca Hift. Natur	-	205
Boettcher, J. F. vom der Krankheiten der Knochen,	-	427
Bohemian Society of Sciences, Transactions of,		212
Bonsi, Conte F. Instruzione Veterinaria, -	-	209
Bosch, H. Van der, on the capillary Vesscls, -	-	208
Brand, Tho. Vindication of Mr. Hunter, -	-	311
Brandith, Jos. Case of a Mortification of the Leg,	-	123
Exfoliation of the Jaw Bone,	-	296
Brugnoni, J. de Testium in fætu positu,	-	317
Buruside, Tho. de Phrenitide,	-	107
Ç.		
Campani, A. Sopra i denti,		209
Cirmen de medico male curante,	-	214
Carrere, M. Manuel pour les Malades, -	-	215
Carrick, And. de Asthmate periodico, -	-	315
Cafement, Hugo, de Rheumatismo, -		107
Celfi, A. C. Medicinæ libri octo ex recensione Targæ,	-	213
Chambaud, M. Menuret de, Topographie Med. de Paris,	-	309
Chaussier, M. fur les Morfures des Animaux enragés,	-	110
Chessher, R. Case of Luxation of the Os Humeri,	-	189
Cirillo, Dom. Fundamenta Botanica, -	-	317
Clarke, John, on the Compression of the umbilical Cord,		182
Commerell, Abbé, Account of the Scarcity Root.	-	313
Covey, John, Observations on Inoculation, -	-	3
,, on a Difeate of the Lymphatics, -		136
Craven, Joh. de fluxu menstruo,	- 41 -	315
	Cruiksh	ank,

[429]

Cruckshank, W. Anatomy of the Abiorbents,	105
Cullen, Dr. French Translation of his Materia Medica,	216
-, Genera Morborum,	203
D.	
Damen, J. C. Cases of the Section of the Symphysis Pubis,	0.4
Darby, John, Cafe of Emphysema,	34
Davalos, J E. de, de morbis Limæ graffantibus,	407
Davalos, J. E. de, de moios bana gianantibus,	316
Deafe, William, Observations in Midwifery,	105
Delius, H. F. Adversaria Physico-medica,	214
Delonnes, Mi. Imbert, de l'Hydrocele,	210
Denman, Dr. Tho. on difficult Labours,	199
Engravings relative to Generation,	426
Desimonceaux, Abbé, des Maladies des Yeux,	210
Dissertazione sopra l'origine delle Malattie,	209
Doeveren, G. Van, de morbis Mulierum,	213
Duncan, Franciscus, de Infania,	315
Dundas, David, Cafe of Hydrophobia,	156
F	1 20
71 1 27 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Floock, Nicol. de morbo venereo,	108
Elvert, J. C P. Magazin fuer Apotheker,	III
Enaux, M. fur les Morfures des Animaux enragés,	110
Eschenbach, C. G. de auri Calcibus,	214
F.	
Finke, L. L. de Natura simplicitate,	
Fletcher, Charles, on the Health of Seamen,	201
Fætus, extra-uterine, Cases, and Observations relative to, 147,321	106
Francis Folia on Polices	
Fontana, Felix, on Poisons,	199
, M. Analyse des Eaux de Vinay,	427
Foot, Jesse, on the new Opinions of J. Hunter, - 105,	311
Ford, Edward, Cases of Wounds of the Head,	411
Frank, J. P. de Civis Medici conditione,	203
vefica urinali,	ibid.
G.	
Gachet, M. Manuel des Goutteux,	
Garthshore, Dr. Maxwell, on extra-uterine Cases,	215
Gibbons, J. H. de vestitu lanco,	328
	108
Gill, Tho. de Retroversione Uteri,	312
Gillan, Hugo, de Igne,	108
Gillespie, Laur. on the Health of Seamen,	113
Gleize, M. fur les Maladies de l'Oeil,	211
Goldson, W. Case of lacerated V agina,	200
Goldwiz, S. Physiologie der Galle,	320
Goodwin, W. Account of a Mollities Ossium,	67
Goodwyn, Edm. de morbo morteque submersorum,	108
Н.	
Hale, John, Case of Fracture of the Sternum,	391
Hall, Richard, Cafe of a Scirrhus of the Scrotum,	8 £
Harrison, J. Worm Cases,	SOI
Hartenkeil, J. Jac. de Calculo Urinæ;	112
Hermitadt, S. F. Phys. Chem. Versuche,	320
kleffe	lius.

[430]

Helicius, A. de Aloe,	ter .	204
Hoffman, G. F. Historia Salicum,		ibid.
Home, Everard, on the Poplitcal Aneurism,	_	126
Houlston, Dr. Tho. Observations on Poisons,	_	
Howard, John, on the Venereal Difeafc, -	_	313
Humane Society, Reports of,	_	199
	•	314
Hunter, John, on the Mollities Offium,	•	70
, des Maladies veneriennes,		320
on the Animal Oeconomy,	-	106
Hydrocele, Observations on the Treatment of,		119
Hydrophobia, Case of,		156
T.		- 3 -
Jackson, Alex. de Febre puerperarum,		
Dr. Robert on the luner Influence in Francis	•	315
Dr. Robert, on the lunar Influence in Fevers,		25, 300
Jacob, Edw. Casc of extra-uterine Fœtus, -	-	147
Jaenisch, J. H. on Cancers,	-	112
Jeffray, Jac. de Placenta, -	-	103
Instruzioni mediche,		208
Johnstone, Dr. J. on the Walton Water,		310
K.	-	310
Kampf, J. on Hypochondriasis,	-	213
Kentish, Dr. R. on Sca Bathing,	-	311
, on the Study of Natural History,	-	ibid.
Kerr, Carolus, de Pneumonia,	-	315
Khun, J. G. on nervous Diseases, -		212
Kinglake, Robert, Case by,	-	385
Kirkaldie, G. de duabus aeris speciebus, -		**
Kirkland, Dr. Tho. medical Surgery,	•	108
	-	106
Kirwan, R. on the Temperature of different Latitudes,		200
on Phlogiston,	-	2 id.
Kite, Charles, Cases of Obstruction of the Bowels,	-	164
Krzowitz, W. Trnka de, Hist. Cardialgiæ,		109
L.		,
Lautenschlagen, J. H. de medicis Hebræorum,	_	313
Lecky, Gul. de morbis gravidarum,		
Lichfield, Botanical Society at, Families of Plants,	-	315
	-	314
Lind, Dr. J. Use of Mercury in Inflammation and Dyse	ntery,	43
on the Influence of the Moon in Fevers,	-	145
Lodin, J. G. de tumoribus salivalibus, -		112
Lucadou, M. sur les Maladies de Rochesort, -		319
Lucas, James, Remarks on Amputation, -	-	142
Luzuriaga, J. M. R. de Syft. Sanguin. et Nervost,		308
M.		
Mac Ilwaine, Jac. de Rabie Canina,	-	315
Magnefia, Observations on its Action on Bark, -		75
Mantell, T. on the Management of Infants,	-	107
Manual for German Surgeons,	-	112
Mascagni, P. sur les vaisseaux lymphatiques, -		
		215
Medical Society in London, Memoirs of,		200
Memis, Dr. J. on the Cure of Diseases,	-	106
Mensching, J. H. de Acris fixi usu,	-	427
	4	Iethode

[431]

Afail . I. I. Maraman alatina alahin laur	-
Methode de Nomenclature chimique,	426
Meurfius, Johannes, de Puerperio,	317
Michaelis, Dr. F. on the Regeneration of Nerves, -	207
Millington, L. Account of the Cultivation of Aloes, -	423
Milman, Dr. French Translation of his Work on the Scurvy,	
	-
Mitchill, S. L. circa novi genituram animalis,	108
Montaux, M. Chambon de, fur les Maladies des Femmes,	IIO
Moon, Observations on its supposed Influence in Fevers, 25,	145, 300
Moores, Daniel, de Febre remittente Marilandica, -	316
Murray, Adolphus, Differtations by,	112
Addita, Addipitus, Differentiations by,	112
N.	
Niemeyer, J. H. A. de Viola Canina,	205
Nouvelles instructives de Medecine,	207
	40)
Ο.	
Obf rvations on the old System of Physic,	310
P.	3
Pasta, Jos. de Sanguine,	317
Perfect, Dr. W. Cafes of Infanity,	312
Petit Radel, M. Fsfai fur le Lait,	200
Peyrilhe, M. Ren ede contre les Maladies veneriennes,	205
Pichler, J. F. methodus formulas conscribendi, -	ibid.
Plenk, Jof. Jac. 7 oxicologia,	214
Pratolongo, Giuses pe, delle Febbri,	426
Prendergast, Joans es, de Colica Pictonum,	108
Pressavin, M. Tra té d'Hygiene,	206
Pubis, Cases of the Section of the Symphysis, -	34, 318
R.	3473
Raven, G. F. B. on the Scarcity of good Surgeons in German	7, 203
B	
Razoumowsky, Comte, des Transitions de la Nature, -	205
Renwick, Thomas, de Typho,	316
Revillon, M. fur les Affections hypocondriaques,	209
Richter, C. F. on Fevers,	212
Roberts, J. W. de Morbillis,	109
Rodbard, John, Case of a Rupture of the Tendo Achillis,	30.4
D. C. D. B. Ol Constitute of the Tendo Memins,	
Rush, Dr. B. Observations on Cancers,	89
Oration by,	202
S.	
	201
Saffory, Henry, Treatife on Cancers,	
Saffory, Henry, Treatife on Cancers,	
Sanchés, A. N. R. fur les Maladies veneriennes,	110
Sanchés, A. N. R. fur les Maladies veneriennes, Saunders, Dr. W. German Translation of his Work on the Ba	ark, ilid.
Sanches, A. N. R. fur les Maladies veneriennes, Saunders, Dr. W. German Translation of his Work on the Ba Schoele, Charles-William, Chemical Essays,	
Sanchés, A. N. R. fur les Maladies veneriennes, Saunders, Dr. W. German Translation of his Work on the Ba	ark, ilid.
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Sanchés, A. N. R. fur les Maladies veneriennes, Saunders, Dr. W. German Translation of his Work on the Baseles, Charles-William, Chemical Essays, Seze, M. dc, fur la Sensibilité, Simmons, S. F. de Phthis Pulmonali, Simpson, Joannes, de Leucorrhæa,	ark, ibid. 105 211 109 316
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Sanchés, A. N. R. fur les Maladies veneriennes, Saunders, Dr. W. German Translation of his Work on the Escheele, Charles-William, Chemical Essays, Seze, M. dc, sur la Sensibilité, Simmons, S. F. de Phthisi Pulmonali, Simpson, Joannes, de Leucorrhæa, Skeete, Dr. Tho. his Reply to Dr Irving, Smellie, Dr. Edition of his Tables by Dr. Hamilton,	ark, ibid. 105 211 109 316 75 312
Sanchés, A. N. R. fur les Maladies veneriennes, Saunders, Dr. W. German Translation of his Work on the Eschele, Charles-William, Chemical Essays, Seze, M. de, sur la Sensibilité, Simmons, S. F. de Phthisi Pulmonali, Simpson, Joannes, de Leucorrhœa, Skeete, Dr. Tho. his Reply to Dr Irving, Smellie, Dr. Edition of his Tables by Dr. Hamilton, Smith, Tho. de Medicina Sestæ Methodicæ,	ark, ibid. 105 211 129 316 75 312 316
Sanchés, A. N. R. fur les Maladies veneriennes, Saunders, Dr. W. German Translation of his Work on the Escheele, Charles-William, Chemical Essays, Seze, M. dc, sur la Sensibilité, Simmons, S. F. de Phthisi Pulmonali, Simpson, Joannes, de Leucorrhæa, Skeete, Dr. Tho. his Reply to Dr Irving, Smellie, Dr. Edition of his Tables by Dr. Hamilton,	ark, ibid. 105 211 109 316 75 312
Sanchés, A. N. R. fur les Maladies veneriennes, Saunders, Dr. W. German Translation of his Work on the Eschele, Charles-William, Chemical Essays, Seze, M. de, sur la Sensibilité, Simmons, S. F. de Phthisi Pulmonali, Simpson, Joannes, de Leucorrhœa, Skeete, Dr. Tho. his Reply to Dr Irving, Smellie, Dr. Edition of his Tables by Dr. Hamilton, Smith, Tho. de Medicina Sestæ Methodicæ,	ark, ibid. 105 211 129 316 75 312 316

Sternum, Case of a Fracture of,	
Stewart, Carolus, de Apoplexia,	391
Strack, Car. de Febribus intermittentibus,	316
Struve, J. B. de Erica,	109
	204
Swedish Physicians, Essays by,	111
Т.	
Tavares, Fran. de Pharmacologia,	203
Tendo Achillis, Cafe of a Rupture of,	304
Tengmalm, P. G. de ruptura Cordis,	112
Testa, A. J. de vitalibus periodis,	107
Thiery, M. fur les foins qu'on doit aux morts,	427
Thunberg, C. P. Differtations by,	204
Tickell, W. Account of a new chemical Medicine,	313
Tomlinson, Tho. on the Curc of the Hydrocele,	119
Tressan, le Comte de, sur le Fluide electrique,	211
Tryc, C.B. Review of Jesse Foot's Observations,	311
U.	3
Verdier du Clos, M. Histoire d'une Symphyseotomie.	318
Vicq d'Azyr, M. Traité d'Anatomic,	~
Villars, M. fur les Maladies de Grenoble,	215
Vision, Account of a Peculiarity of,	319
Voullonne, M. fur les Fievres intermittentes,	306 206
Underwood, Dr. M. on the Effects of crude Mercury, -	
Case of extra uterine Foxtus,	85
Uterus, Observations on Ruptures of,	321
W.	356
Walker, Robertus, de Cynanche maligna,	310
Wall, Dr. M. on the Use of Opium in Fevers,	105
Walter, J. G. de morbis Peritonai et Apoplexia,	214
Waterhouse, Dr. B Synopsis of his Lectures,	202
Webster, J. S. Case of a Peculiarity of Vision,	3.6
Weigel, C. H. B. Experimenta Chemica,	203
Westrumb, J. F. Physico chemical Essays,	213
Whitelaw, Gul. de Rubeola,	109
Willan, Dr. R. on the Use of Arsenic in Intermittents,	101
Wilmer, B. Account of Hydatids discharged from the Uterus,	382
Wolff, D. H. on the Use of Blisters in Fevers,	III
Wright, Dr. W. on the Effects of vegetable Acid and marine Salt,	97
medicinal Plants of Jamaica,	217
Wrifberg, H. A. Sylloge Comment. Anat	214
Z.	
Zandyck, J. B. de morbis Epidemicis,	317

ERRATA.

Vol. VII. page 128, for sedative, read sedentary.
Page 17, of the present Volume, for cases similar to those related, read cases related.—P. 238, for Cane Plant—Sensitive Plant, read Cone Piece Sensitive Plant.







