

THE
Medical and Physical Journal.

VOL. II.]

DECEMBER, 1799.

[NO. X.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN the as yet undetermined state of the public mind, respecting the utility of inoculating with the infection of the cow-pox, you, and some other of my medical friends, thought that the inclosed narrative deserved publication; I therefore send it for insertion in your Journal. It is written by the Rev. Mr. HOLT, Rector of Finmere, near Buckingham, a gentleman whose character is highly estimable for benevolence, learning, and love of science. There is no medical practitioner in his parish, and the poor are, therefore, in some degree, precluded from the beneficial effects of variolous inoculation. In conversing with Mr. HOLT, last summer, on the subject of the cow-pox, the favourable report which I made of its effects from my own small experience and observations, induced him, as he takes a kind of parental interest in the sufferings and welfare of his parishioners, to inoculate some of them with this infection. The result of the experiment, and all circumstances relating to it, are explained in the inclosed letter.

I remain,

GENTLEMEN,

BEDFORD-ROW,

Nov. 9, 1799.

Your most obedient Servant,

JOHN ABERNETHY.

DEAR SIR,

IT gives me great pleasure that I am enabled to perform my promise of sending you an account of my success in inoculating for the cow-pox. The novelty of the experiment made me apprehensive that my parishioners would not readily submit to an operation which they might consider dangerous in its consequences, and doubtful in its effects; but

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these fears were soon removed, as I found them all impressed with the belief, that the cow-pox caught in the natural way were a certain preventative of the small-pox. This induced me to inquire into the grounds of this opinion, and I was soon furnished with a variety of names and cases, which, though probably authentic, I rejected, as some lived at too great a distance from me, and others had happened many years ago; and I determined to rely only on those instances in which I could ascertain the facts from the persons themselves, a list of whom I shall subjoin.

My first essay in inoculation was made upon Elizabeth Smith, aged about 25, whom I inoculated in both arms, to ensure as much as possible the probability of infection. On the sixth day she complained of head-ach and pain in the axillæ; the former was removed by a dose of salts the following morning, the latter continued several days: she had *no pustules*, except where I made the incisions, and their appearance and progress were exactly similar to the description and beautiful plate given by Dr. JENNER. She had no indisposition of consequence enough to prevent her performing her usual work with ease, and on the thirteenth day the pustules became dry, and peeled off. I have since inoculated upwards of three hundred, and, as I adopted Dr. WOODVILLE's excellent method, of stating when and from whom each person was inoculated, I was enabled to trace varieties up to their source. But, excepting four instances, my cases were all like each other, viz. pain in the axillæ the seventh or eighth day, slight head-ach, sometimes attended with feverish shiverings, which invariably yielded to a dose of salts the day after; except in the case of Thomas Sheen, a baker, who was obliged to desist from his usual occupation for three days, in consequence of the pain and inflammation of his arm, which possibly might be increased by the heat to which he was so much exposed, as his is the only case in which the patient was prevented following his business as usual. One dose of salts, taken the morning after they complained of pain, was the only medicine which they had. The varieties which occurred were, Thomas Williams, aged 7 years, who had a small pustule, about two inches from the incision, resembling one of the plates in Dr. JENNER's publication. William Neil, aged 10 years, and Hannah Beal, aged 6 years, had each above *one hundred* pustules in different parts of their bodies, which assumed precisely the appearance of that given by inoculation, except that they were smaller: no complaint of more than ordinary indisposition was made in either case. In
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order to ascertain whether there was any peculiar malignancy in the matter of these pustules, I inoculated eight children from them; but they all had the complaint in its mildest form, having neither any pustules, nor any indisposition more than the rest. My patients were of all ages, from seven weeks to sixty years; nor did diseased habits of body, or pregnancy, lessen the mildness of the infection. One circumstance occurred, which, perhaps, is too trivial to be mentioned: I inoculated near thirty, twice or thrice, apparently without effect, allowing an interval of five or six days; but though they sickened from the last incision, a pustule regularly appeared wherever I had formerly inoculated them, as if the dormant matter had been roused by the activity of that last inserted. At the expiration of three weeks, I inoculated six of my parishioners with variolous matter. On the third day I was not a little alarmed by a considerable degree of inflammation which appeared in all their arms, and which seemed to indicate the certainty of their having the small-pox; but in two or three days the whole disappeared, without any pustule being formed. It is my intention to inoculate others as often as I can conveniently procure variolous matter; and by the kindness of Mr. GRAY, an eminent surgeon and apothecary in Buckingham, I am promised some in a short time, the result of which you shall be informed of. Mr. GRAY, whose zeal for his profession is only equalled by his ability, has also allowed me to state his following case, which he had at Boreton, in Buckinghamshire:—A farmer and his sons, who had had the small-pox, did not receive any injury from milking the cows, though their teats were extremely ulcerated at the time; but a servant, who had not had the small-pox, caught from them the cow-pox, and was so dangerously ill that medical help was necessary for more than three weeks, and the effluvia from him was so very offensive, that every room in the house was strongly tainted with it. Notwithstanding this, none of his friends and acquaintance caught the infection, though they had had neither complaint. It would seem, then, that the advantages of the small and cow-pox are reciprocal, and that the effluvia of pure cow-pox matter is probably not infectious, even in its worst state.

I will now add the cases which I mentioned above, in which the cow-pox seem to have prevented variolous infection.

In the year 1785, Benjamin Cowley, aged 26, when servant to Mrs. Hodgekinson, of the New-Inn, near Stowe, had the cow-pox. About three years after, he entered into the Oxfordshire militia, in which
he

he remained five years, during this time he was three times inoculated by the surgeon of the regiment, without effect.

Richard Smith, aged 24, had the cow-pox at the same time and place: he has not since been inoculated, but his large family have at different times since had the small-pox, and he has not caught the infection.

Edward Stockley, aged 20, had the cow-pox when young; he was inoculated several times, about two years ago, for the small-pox, in this parish, but without effect.

A servant of Mr. Morris, of Water Stratford, had the cow-pox several years ago: he has been inoculated seventeen times since for the small-pox, but without effect.

Mrs. Malins had the cow-pox when young; she afterwards married, and her daughter had the small-pox so dreadfully in the natural way, that the mother tried to prevent her going blind, by moistening the corner of her eyes with saliva. In consequence of which, Mrs. M. had one large pustule upon her lip, occasioned by wetting her finger and applying it to the child, and two small ones upon her arm upon which the child lay; but she had no indisposition, and seems only to have experienced what nurses do in hospitals.

You may depend upon the authenticity of the above cases; and I could send you more, had I opportunity and leisure to go to the parties themselves.

My parishioners are fully sensible of their obligations to you, for enabling me to introduce this complaint among them; as the small-pox are so much dreaded in this neighbourhood, that all intercourse with the surrounding parishes is interrupted, when any one is infected with them; and I am convinced that the resident parochial clergy could not render a more essential service to the temporal interests of their flock, than by devoting a few days to this inoculation, which is attended with little trouble, and no expence.

I am, Sir,

Your affectionate

And very faithful friend,

ROBERT HOLT.

FINMERE, Nov. 6, 1799.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

MR. PULLEY has animadverted, with great freedom, on my communication to you of the 21st of last May, possibly with the expectation of drawing from me a reply. And, although I dislike any thing like controversy, not being deeply grounded in logic and criticism, yet he shall not for once be disappointed, if you will again favour me by inserting this short letter in your Journal.

Let me premise, gentlemen, that the history of GREEN's case is composed without the smallest mixture of hypothesis. Mr. PULLEY acknowledges beside, that, "the case is clearly recorded." It is plain then, that I had the truth in view, and that I did not write, like the case-coiners, alluded to by Dr. CULLEN, *ut Famam mihi compararem* (*Prolegomena. Synopsis Nosologiae Methodicae.*)

But, gentlemen, if I have succeeded to Mr. PULLEY's mind, in the historical part of my communication, I have, it seems, fallen very short of success in the speculative. This I cannot help; it is not an unusual thing for men to reason differently, and to draw different conclusions from the same premises. I would not insinuate, that the profession of medicine is not eminently distinguished by variety of knowledge and correctness of composition; but I humbly imagine, that, as medical men speculate more than others, and as their speculations are more intricate, they have, consequently, more frequent opportunities of erring. Be this as it may, such is human nature, that, in philosophy or art, in all matters, except those of revelation and divine testimony, we arrive at perfection by very slow degrees.

My conclusion, however, that GREEN's disease and death depended on the absorption of a poison, accidentally introduced by the lancet of a barber, has displeased Mr. PULLEY; and he has been the more displeased, since, by my conclusion, "the poor barber stands convicted of having poisoned his neighbour." This then, the exculpation of "the poor barber," is, as Mr. PULLEY calls it, the "point of no small importance," for which my error ought to be corrected. Granted; whether for that reason, or for any other. But, if my reasoning have
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been prejudicial to the barber, I could not help it; God forbid, that I should willingly do an injury to any man, in any manner.

As I could not form any notion of the origin of the supposed morbid poison, so I did not venture to guess at it's laws. The period between the insertion of the small-pox matter and the inflammation of the punctured part, is often less than three days; the period between the venesection of GREEN and the inflammation was three days. The period between the introduction of small-pox matter, and the suppuration of the punctured part, is often only four days: In GREEN's case it was only four days. So far there is some analogy between it and the small-pox, and the *variola vaccinae*: and I might trace the analogy in other respects; but I shall content myself, at present, by observing, that, if pain had attended the operation; if the inflammation had extended down the arm, as well as up; if there had been any induration of the venal tube; if the absorbents had not been evidently inflamed and indurated from the puncture upwards, towards the axilla; and if the constitutional affection had preceded the disease of the absorbents, I should not have thought of attributing GREEN's symptoms to a morbid poison. Every one knows, that the absorbent vessels are readily inflamed by virulent matter; and none who reflects on their superficial situation, appearance, course, &c. can suppose, that I mistook for an inflammation of them, an inflammation of the vein, or of the cellular membrane. After all, what I offered was mere conjecture; and I may add, that my practice would have been precisely the same, except in one particular, if I had not formed the conclusion that GREEN's symptoms proceeded from absorption;—if science alone ought to regulate practice: yet, when we cannot have scientific principles, we must content ourselves with hypothetical ones. I never expected, that my conclusion from GREEN's case would supply any one with a single principle of action: my conclusion is, therefore, harmless, if not strictly correct.

I remain, GENTLEMEN,

Your very obedient servant,

Rochester, Oct. 17, 1799.

WALTER VAUGHAN.

A Case of Concussion of the Brain, which terminated fatally.
 By MR. CHARLES BROWN, Member of the Corporation
 of Surgeons, London.

LAST Tuesday evening, about six o'clock, I was sent for to a young gentleman in Guilford Street; who, by a fall from his horse, on the pavement in Finsbury Square, had received a violent blow upon the left parietal bone. When I arrived at his house, which was about two hours after the accident, (being then but just removed home) I found him lying in bed, vomiting every two minutes, and in a state of stupor. His extremities were cold, the pupils very much contracted, and he had a frown on his face, as if he knew his own complaint. Upon examining the head, I found the integuments much bruised; but the pericranium was not detached from the skull. I immediately took away sixteen ounces of blood from the temporal artery on the affected side; directed the head to be shaved, and applied a large blister all over it. The following mixture was prescribed; of which, I ordered three table spoonfuls to be taken every two hours, till it operated.

R Infus. fennæ ʒvij, tinct^r jalapii ʒijj, syr. e spin. cervin. ʒiss, kali tartar ʒijj, tinct^r lavend. c. ʒss. M. f^r mixt. purg.

The next morning I found him more sensible; his pulse was still full and hard, and his breathing was laborious. He took the whole of the mixture, before it operated; he then had two stools: I repeated the mixture, and took away twelve ounces of blood from the median vein in his right arm: the blister was cut and dressed with the ung^r epispast. Before the evening, he had several stools, after which he was seized with shivering fits, and talked incoherently; I visited him at eleven o'clock this evening, and directed pul. ipecac. comp. gr. xv to be taken in a draught, with twenty drops of vini antim. tart. every six hours. The next day, I perceived no alteration; his pulse still hard and full; his medicines had sweated him profusely, and his extremities felt warm. He passed the whole of this day very restless, and died about ten o'clock at night, just as I was holding a consultation on his case with another surgeon. Having obtained permission, I opened his head next morning, and found both the vessels of the dura and pia mater very turgid with blood. A layer of coagulable lymph adhered upon

upon the inner surface of the dura mater, like an adventitious membrane. Suppuration had taken place, and a considerable quantity of pus lay between the membranes of the brain; the spinus or middle artery of the dura mater was uncommonly large in this subject.

Hatton Garden, Nov. 5, 1799.

CHARLES BROWN.

LIST OF DISEASES IN LONDON,

From the 20th of August to the 20th of September 1799; being the result of the public and private Practice of a Physician at the West End of the Town.

	No. of Cases.		No. of Cases.
ACUTE DISEASES.		Chronic Rheumatism	5
Contagious malignant Fever	19	Asthenia	19
Measles	14	Anasarca	8
Scarlatina	2	Paralysis	2
Small-pox	4	Dyspepsia	20
Hooping Cough	3	Gastrodynia	11
Catarrh	10	Enterodynia, and Colic	10
Pneumonic Inflammation	4	Constipation	3
Acute Rheumatism	3	Bilious Vomiting, and Di-	
Erysipelas	1	arrhœa	22
Epistaxis	1	Chlorosis and Amenorrhœa	15
Hæmoptoe	2	Fluor Albus	4
Hæmatemesis	1	Menorrhagia	3
Intestinal Hemorrhagy	1	Prolapsus Uteri	1
Hætic	4	Scirrhus of the Uterus	2
Synochus, or Summer Fever	12	Scirrhus of the Liver	1
Cholera	2	Jaundice	2
Slow Fever	5	Tabes Mesenterica	3
Acute Diseases of Infants	15	Worms	3
Childbed and Milk Fevers	3	Dysury and Gravel	5
Apthous Fever	2	Lepra	3
Hydrophobia	1	Shingles	2
CHRONIC DISEASES.		Nettle Rash	1
Cough and Dispnoea	26	Erythema	1
Phthisis pulmonalis	10	Itch	6
Pleurodyne	1	Porriago	3

The number of contagious fevers has been much increased during the month of September, either from a continuance of the causes assigned in the Journal, No. VIII. or from the general effect of the autumnal season on the human body, by which it is rendered more than usually susceptible of almost every species of infection. This effect is exemplified in the above statement of diseases, and further proved by the observation of practitioners

practitioners differently stationed; all of whom agree, that, along with malignant fevers, the measles, small-pox, scarlatina, &c. have begun to spread rapidly and widely.

Persons exposed, without shelter, to the vicissitudes of the atmosphere, have been affected with the synochus, with erysipelas, pneumonic inflammation, diarrhoea, cholera, and violent pain or inflammation of the bowels, disorders often endangering life in the present season of the year.

The case of hydrophobia occurred about the middle of August; the patient, a fine boy, ten years old, had been bitten by a dog in Fetter Lane, six weeks before the dread of water commenced. As he lived no more than two days after the appearance of this symptom, I had only an opportunity of paying him a single visit. His pulse was then hurried and irregular; his manner confused and agitated; his utterance rapid and abrupt; his eyes appeared bright and sparkling, and had a mixed expression of wildness and anxiety. He was perpetually hawking up some frothy phlegm, which seemed to irritate the larynx. When a glass of water was presented to him, a rattling and convulsive motion took place in his throat, rendering deglutition impracticable: the water, whether applied to his lips, or merely put in his sight, seemed to excite every mark of consternation and horror. All the above symptoms could, however, be produced by other means as strongly as by the application of liquids. When Mr. HEATHER, the attending surgeon, attempted, without any objection made by the patient, to examine the state of the tonsils, &c. the spoon no sooner approached his teeth, than the muscles of the throat were thrown into violent action, and he made a noise, which was aptly enough compared by those around him, to the snarling of a fierce dog about to receive chastisement. At the time of our visit to this wretched boy, he was more composed than he had been through the preceding night. He had, we were informed, had repeated fits of raving, in which he became almost unmanageable, and endeavoured to bite the hands of those who held him. In the evening after we saw him, he began to complain of pain in the head, and of violent pains in the stomach and bowels: his fever and other symptoms appeared to increase; and after enduring dreadful agony for several hours, he expired about two o'clock in the morning. The body was examined by an attentive and accurate observer, Mr. WHATELY, of Bedford Row, to whom the Editors of the Medical and Physical Journal are obliged for the following detail of the appearances after death.

On opening the abdomen, all its contents appeared to be in a sound state, except the spleen, which adhered to all the parts with which it lies in contact; and was smaller, and more convex, on its external side, than it is usually found to be. These appearances in the spleen, had been evidently produced by an inflammation of that organ, some time before the illness, which was the immediate cause of the patient's death. From the external appearance of the stomach, it would have been thought free from disease; but on opening it, the whole of its villous coat was found to be greatly inflamed. The greatest degree of this inflammation was at the large extremity of the stomach, and particularly about the cardia, around which, to the extent of two or three inches, the villous coat was abraded. The inflammation did not extend to any part of the intestinal canal: it ceased at the pylorus; but it was continued from the cardia, along the œsophagus, to the pharynx. About two inches of the internal coat of that part of the œsophagus, which joins to the cardia, was also abraded. The inflammation upon the œsophagus, was not confined merely to its internal surface, but reached to its external coat, on which it was likewise continued through its whole extent; and in different parts of the cellular membrane adjoining to it, small quantities of effused blood were found. The pharynx was very slightly inflamed. The uvula, palatum molle, and tonsils, were intirely free from inflammation. The left lung was of a more solid texture, of a darker colour, and fuller of blood, than it is ever found to be in its natural state; all which circumstances may be considered as the effects of inflammation. About three or four ounces of bloody water were found in the right cavity of the chest. There was likewise a slight inflammation on the internal membrane of the trachea; but it ceased near the larynx, which, with the epiglottis, was intirely free from inflammation. There was some inflammation on the external surface of the heart, but it did not extend to the inner surface of the ventricles.

Sept. 23, 1799.

R. W.

An Account of Diseases from the 20th of October to the 20th of November,
1799.

No. of Cases.		No. of Cases.	
ACUTE DISEASES.			
Contagious malignant Fever	22	Peripneumony	3
Scarlet Fever	15	Peritoneal Inflammation	2
Measles	12	Acute Rheumatism	7
Catarrh	18	Ophthalmia	2
		Angina	2
		Erysipelas	

No. of Cases.		No. of Cases	
Erysipelas	1	Enterodynia	5
Acute Diseases of Infants	8	Hæmorrhoids	3
Hooping Cough	3	Worms	2
Childbed and Milk Fevers	5	Chlorosis and Amenorrhœa	11
Hæctic and Slow Fever	7	Menorrhagia	2
CHRONIC DISEASES.		Fluor Albus	3
Cough and Dispnoea	32	Prolapsus Uteri	1
Hæmoptoe	3	Scirrhus Uteri	2
Pulmonary Consumption	6	Gravel Dysury	3
Pleurodyne	3	Scirrhus of the Liver	1
Chronic Rheumatism	14	Jaundice	2
Asthma	16	Tabes Mesenterica	2
Dropfy	6	Rickets	4
Cephalea	4	Scrophula	6
Vertigo	2	Lepra	2
Epilepsy	3	Itch and Prurigo	10
Hysteria	1	Impetigo	3
Palsy	2	Nettle Rash	1
Hydrocephalus	1	Herpes	1
Palpitation	1	Acne	5
Dyspepsia	11	Dandriff	2
Gastrodynia	7	Porriga	3
Hæmatemesis	2	Erythema	1
Bilious Vomiting, and Di-		Purpura	1
arrhœa	13	Lupus	1

The measles, though extensively diffused, have continued mild and moderate. The scarlet fever has increased, since the last report, both in extent and in the violence of its symptoms: but the typhus, or contagious malignant fever, has been the most frequent, as well as the most fatal, of all acute diseases. Of the number specified in the lists for the present and preceding month, ten patients died, whereas the usual proportion of deaths from this fever, westward of Temple Bar, is one in seventeen or eighteen cases. The habitations of the poor, within or adjoining to the city, have suffered most; and some, I am informed, have been nearly depopulated, the infection having extended to every inmate. The rumour of a plague was totally devoid of foundation: one of the persons said to have been affected with it from opening some bales of prize-cotton, died with the usual symptoms of a peripneumony. It was afterwards ascertained, by anatomical dissection, that his death was occasioned by a violent inflammation of the lungs, which seemed to have been brought on by intemperance in drinking, and exposure to a cold and damp air, at an unseasonable time of the night.

The typhus, or contagious malignant fever, was, in September, attended with a dull pain of the head, great debility, or a sense of lassitude,

tude, and pains referred to the bones, tremblings, restlessness with slight delirium, a querulous tone of voice, a small and frequent pulse, heat of the skin, thirst, a fur upon the tongue, first of a dirty white colour, but turning, in the latter stage of the disease, to a yellowish brown. In this form the fever continued thirteen days without any dangerous symptom, and then suddenly disappeared, leaving the patient for some time after languid and dispirited. All the individuals of a family were successively affected with the same train of symptoms, many of them so slightly as not to be much confined to their beds. To this contagious fever alone, Dr. CULLEN ought to have applied the denomination of typhus mitior: he has improperly comprised under it the slow or nervous fever described by HUXHAM and GILCHRIST, which may rather be considered as a species of hectic, and is not received by infection.

In October and November, the disease, as is usual, assumed its more dangerous form. The pain of the head was deep seated, and attended with great confusion of ideas; a total loss of strength suddenly took place, and the limbs felt sore, as if they had been all over bruised. The pulse was weak and irregular: a thick, fœtid, brown fur covered all the upper part of the tongue; the tongue itself became hard, dry, and almost immovable; and the teeth were also covered with a brown or black crust. There was a smarting or burning heat of the skin, which conveyed an unpleasant, benumbing sensation to the fingers and wrist of the practitioner who felt the pulse. The eyes were frequently suffused; the head-ach terminated, during the second week, in coma or stupor, with great insensibility, deafness, &c. These symptoms were, however, more favourable than a state of agitation and watchfulness. In the fatal cases there occurred, a few hours before death, a laborious respiration, with a fluttering, irregular pulse, difficulty of swallowing, and sometimes hic-cough. A favourable crisis was made by sweating, accompanied, in some instances, by a sensation of coldness: a diarrhœa took place only in one patient. The critical days seemed to be, the seventh, the eleventh, the thirteenth, the fifteenth, and the nineteenth, but the most numerous crises were on the eleventh and thirteenth. The changes, whether for recovery or death, took place very suddenly. I did not observe petechial spots in any of the cases; nor the alterations of cold shiverings with flushes of heat, which most practical writers describe as the primary symptoms of malignant fever.

The Peruvian bark was of no considerable advantage in the fever
above

above described, unless emetics had been administered before the end of the fourth day. Several of the patients were washed twice a day with cold water and vinegar, with only temporary relief. In the most unfavourable state of the disease, blisters were of great utility; they produced a remission of the fever, made the pulse more free and regular, and seemed to be the means of procuring rest. Some patients were relieved by them in whom the loss of sight, of speech, and of the power of deglutition seemed to threaten immediate dissolution. If two or three persons lie in one bed, which frequently happens in the crowded dwellings of the poor, some one almost certainly falls a victim to the fever; I am, however, happy to state, that a man and his wife, who had the fever in its most malignant form, and were confined to the same bed, have been restored during the present month, by the active exertions of a medical friend and assistant.*

The state of the atmosphere must have undoubtedly caused the great extension and aggravated symptoms of the malignant fever. On this subject it is proper to remark, that between the 22d of June and the 17th of November, in a period of 147 days, there were only eight days free from rain; a circumstance, perhaps, unparalleled in meteorological observations.

R. W.

Account of Diseases in an Eastern District of London, from the 20th of October to the 20th of November.

No. of Cases.			No. of Cases.		
ACUTE DISEASES.			Paralysis	-	1
Typhus Gravior	-	3	Epilepsia	-	1
Typhus Mitior	-	6	Amentia	-	1
Scarlatina	-	2	Dyspepsia	-	8
Scarlatina Anginosa	-	3	Vomitus	-	3
Peripneumonia	-	3	Diarrhoea	-	16
Acute Rheumatism	-	2	Dysenteria	-	4
CHRONIC DISEASES.			Colica	-	3
Peripneumonia notha	-	8	Colica Pictonum	-	2
Cough	-	12	Intestinal Hæmorrhagy	-	1
Dyspnœa	-	9	Hepatalgia	-	1
Cough and Dyspnœa	-	14	Nephralgia	-	1
Phthisis Pulmonalis	-	5	Amenorrhœa	-	6
Hæmoptoe	-	4	Chlorosis	-	9
Hydrothorax	-	2	Hysteria	-	4
Palpitatio	-	2	Chronic Rheumatism	-	12
Apoplexia	-	2			

PUER-

* Dr. Culladen.

PUERPERAL DISEASES.				INFANTILE DISEASES.			
Ephemeræ	-	-	6	Measles	-	-	6
Menorrhagia lochialis	-	-	3	Hooping Cough	-	-	7
Dolor post partum	-	-	2	Tabes Mesenterica	-	-	2
Rhagæ papillæ	-	-	2	Scrophula	-	-	2

Since the last report, there has been a train of diseases similar to those which were then taken notice of. Intestinal complaints continue to form a principal share of the list. The greatest number of these have proved rather tedious and troublesome than violent and alarming. The measles, which have, for some time, prevailed amongst children, occur less frequently. This disease is likely to be succeeded by scarlatina, of which there are at present several instances.

It has hitherto appeared in a mild form. In some cases, the scarlet eruption has been attended with very slight affections of the throat, and the disease has very much resembled that which was described by Sydenham, and which, he observes, generally makes its appearance at the close of summer. The existence of the disease in this mild form, as noticed by Sydenham, has been questioned by some who have been always accustomed to consider the affections of the throat as a necessary characteristic of the disease. Others have spoken as confidently of the existence of it, as described by him, where the anginal symptoms, if they existed, were so slight as not to form a prominent symptom.

That this symptom did not form a part of the disease to which he refers may be taken for granted, when we recollect how acute his observation, and how accurate his description, of disease; but it is equally certain that, since his time, this symptom, in a more or less evident degree, has generally accompanied the complaint.

When children have been the subjects of this disease, it has more frequently appeared in its simple form, than when adults have been the subjects of it; and this circumstance serves to reconcile the observation of Sydenham with what takes place at present,—that, though it seizes whole families, children are more particularly liable to it.

This disease, as was before remarked, appeared in a mild form, in most of the instances referred to in the list. In one patient, however, a child of four years of age, the symptoms were more aggravated; the tonsils were considerably enlarged and inflamed; deglutition was difficult; a large secretion of tough mucus throughout the fauces, occasioned a dif-

a difficulty of breathing, and a material change in the voice. All these symptoms were relieved by external suppuration taking place, and the patient soon recovered.

Diseases admitted under the care of the Physicians of the Westminster Hospital, from the 20th of October to the 20th of November 1799.

Fevers	-	-	13*	Epistaxis	-	-	1
Pleurisy	-	-	1	Gastrodynia	-	-	4
Scarlatina	-	-	2	Hæmoptoe	-	-	4
Quinsey	-	-	2	Hæmorrhoids	-	-	1
Amenorrhœa	-	-	2	Whooping Cough	-	-	1
Anasarca	-	-	5	Hypochondriasis	-	-	1
Asthénia	-	-	5	Hysteria	-	-	1
Asthma	-	-	2	Impetigo	-	-	6
Catarrh	-	-	1	Itch	-	-	1
Convulsions	-	-	1	Lumbago	-	-	3
Colica Pictonum	-	-	1	Menorrhagia	-	-	1
Colic	-	-	1	Phthisis	-	-	2
Cough	-	-	4	Paralysis	-	-	3
Cephala	-	-	4	Pleurodynia	-	-	1
Diarrhœa	-	-	3	Rheumatism	-	-	6
Dyspepsia	-	-	5	Struma	-	-	3
Dyspnœa	-	-	1	Tinea	-	-	2
Dysuria	-	-	1	Vomiting	-	-	1
Enterodynia	-	-	2	Worms	-	-	2
Epilepsy	-	-	1				

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

AS nobody, to my knowledge, has been moved by my exhortations, in *Considerations on Airs*, in the *W. C. Contributions*, and in my *Essay on Consumption*, to try the effect of living with cows in phthisis pulmonalis, I have lately, myself, put this practice to the test of experiment. I have gone to work on such a scale, that I shall, in no long time, be able to stand before the public, and to say whether this expedient will produce any beneficial effect or not. I do not expect to jump all at once into a cure for the majority of cases of true consumption; but, by the analysis, variation, and simplification of the method, I do certainly expect to discover something valuable, at least, in the way of relief.

Upon seeing one of my patients who had been subjected to the pro-
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cess for about a month, an apothecary in Bristol has thought it worth while to imitate it; and I hope others will also follow the example, now it can be done without the opprobrium of innovation.

Before your next Number appears, I shall, probably, publish the first part of my reports.

Rodney-Place, Clifton,
Nov. 21, 1799.

I am, GENTLEMEN,

Your most obedient servant,
THOMAS BEDDOES.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

WITH respect to the Welch Historical Fragment upon the Syphilis, inserted in your Publication for October last, I had no idea that any remarks would have been made, except such as should result from the internal evidence of it; but as Mr. BLAIR has been induced to question the correctness of that piece, it is incumbent upon me to declare, from the plain file of the original, that the translation conveys the meaning of it verbally throughout; only that, for the sake of giving a more decent title to the article, as it was thought, the *Brêç Vawr* has been rendered the *great pustulous eruption*, instead of the *great-pox*, which is the literal and popular import of the name.

I remain,

GENTLEMEN,

Penton-street, Pentonville,
Nov. 9, 1799.

Your humble servant,
WILLIAM OWEN.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

AS few objects, I should imagine, can be of greater importance, either to medical men or to the world at large, than the establishment of the anti-phthical powers of the fox-glove, and as it is only by repeated and unequivocal instances of its salutary effects that so active an article of the *Materia Medica* can be brought into general and permanent use, I lately transmitted to you a case, in addition to those of Marris and Grimes, in which it had effected a perfect cure, and some in which it had relieved and rendered stationary the more prominent symptoms of the disease.

The experience I have now had, indeed, thoroughly convinces me that the digitalis will be found adequate to the cure of several cases of tubercular consumption, though advanced into the second stage; that it will, for a time, suspend the progress of the symptoms in almost every instance; and that in catarrh, in hæmoptoe, and in vomica, it will, in some measure, approach to what is commonly implied by the term specific; a word, however, which should be banished from medicine, when assuming the appellation of a science, it being obvious to every one acquainted with the phenomena and mutability of vital action, that no substance whatever can be supposed to operate on the human system in one uniform and undeviating manner.

Some apprehensions are nevertheless entertained, I perceive, that injury may accrue to medicine from the reports already published in favour of this plant. Your Journal for August contains an ingenious communication from Dr. MACLEAN, of Sudbury; in which, however, notwithstanding his own testimony to the good effects of the digitalis in consumption, he concludes a paragraph, and commences another in the following words: "I see," says he, "the most serious evils begin already to result from its not answering the high expectations that have been raised."—"Others begin to lose their confidence in it from similar failures; whereas, had it been brought forward with its true character stamped upon it, this would not be the case."

Now, in the "Contributions to Medical and Physical Knowledge," the digitalis is related to have been given with a view to cure *tubercular*

consumption; and if, by experience, it has been found beneficial in catarrh, hæmoptoe, and spasmodic asthma, does it follow that, should it fail in the former complaint, it must naturally fail into disrepute in the latter diseases? Surely Dr. MACLEAN should have treated with contempt those who are weak enough to think and argue in this manner. It has for several years been given in pulmonary hæmorrhage with effect, and certainly will continue to be, with the intelligent, whatever may be the result of its trial in phthisis. I am happy, however, to say, that the success which has hitherto attended the exhibition of the digitalis in phthisis has been considerable; several patients in its confirmed state have been cured by this remedy, almost all have been relieved; life has ever been protracted by it; and when death has taken place, whilst the system was under its influence, it has been free from pain or struggle; my expectations have been answered, and Dr. FOWLER, I understand, from further trials, is fixed in his former favourable opinion.

I may also with confidence affirm, that no evil of any magnitude can arise from the use of digitalis in tubercular consumption, if properly exhibited; and that he who shall hasten to employ it early in the disease, will, in proportion to his promptitude, be a benefactor to mankind. Every other medicine, when this complaint is once formed, has been found, by the experience of ages, worthless; many of them frivolous in the extreme; and to have recourse to the old inefficient plan, when the fox-glove is within reach, is wilfully to give up the patient to certain dissolution.

That there are many diseases which assume the form of phthisis, which may be removed by the customary methods, and in which the digitalis would be unnecessarily employed, I am well aware; I am likewise well convinced that mischief may, and will, probably, be produced by an injudicious and indiscriminate use of this active plant; but to what is this to be attributed? not so much to any thing deleterious in the fox-glove, as to the ignorance and inattention of the practitioner. A similar fate has awaited almost every valuable and active agent in the materia medica; but, as Dr. MACLEAN has very justly observed, at the close of his remarks on the effects of fox-glove, "It is unfair to argue of the use of any substance from the abuse of it."

The most unpleasant symptoms consequent on a liberal and long-continued use of this medicine, are vertigo, nausea, and sickness; to remove or mitigate these, therefore, without diminishing at the same time, the

the effect upon the circulation, becomes an object of primary importance. A few drops of laudanum with each dose of the tincture of digitalis will sometimes prevent the rejection of the latter from the stomach, though I have not found it very effectual either in removing the sensation of languor, or the affection of the head. In producing these beneficial purposes, the vegetable acid has, with me, proved much more serviceable. I was induced to make use of it from recollecting its utility in preventing similar effects, in certain constitutions, from the administration of opium. Thirty or forty drops of laudanum in a table-spoonful or two of pure lemon juice, will generally procure refreshing sleep without either heating the body, or being followed the next morning by nausea or vertigo. In one case, where the stomach and head were soon disordered by even a small dose of the digitalis, the lemon-juice produced an immediate good effect, removing both the sickness and vertigo, and enabling me to throw in a larger quantity of the tincture with ease and safety. This, however, being the only instance in which I have employed it, future experience must decide with regard to its general utility. To another patient, with the same view, I likewise gave eight or ten drops of the diluted nitrous acid with every dose of tincture, but could not perceive that it moderated its action on the stomach. Though I have never made the experiment, I am inclined to think that the tepid bath, where not much debility is present, would assist greatly in promoting the retardation of the circulating fluids, and might supersede the necessity of using very large doses of the digitalis for this purpose. Water, when heated to 94 or 96 of Fahrenheit's thermometer, will frequently, and in the course of a very short time too, reduce the pulse ten, twenty, or sometimes even thirty strokes in the minute. Now, after the system has felt the influence of the digitalis, and in about an hour after taking a small dose of it, might not the tepid bath, thus assisted, produce such a depression of the pulse as could only be expected from a full dose of the tincture, or decoction. It would be acquired too, most probably, without either sickness or vertigo; but whether it would be equally permanent or not, remains to be decided. It is evident, also, that a tepid bath, morning and evening, can only be resorted to in incipient consumption, and where no colliquative perspiration has occurred.

My usual vehicle for the tincture of fox-glove has been the infusion of quassia, and, except in the case of Mr. BOUTILL, (the first of those described in my last communication) I have never seen it produce ex-

cessive

cessive languor. In four instances I have reduced the pulse to 40, 44, 50, and 56, with very little affection either of the head or stomach. With some patients, however, (see first and second cases of my last) these have proved so violent as to preclude the prosecution of the medicine. I have endeavoured, but hitherto in vain, to ascertain certain phænomena in the form, system and habits of the patient, which might lead the physician immediately to discriminate with accuracy those constitutions which are susceptible of the full and salutary influence of the digitalis from those which are not. It is a curious subject, and would carry the inquirer into a wide physiological field; the vast importance of such a discovery, however, should stimulate to further research.

As to the preparation of fox-glove best adapted to ensure the requisite effect in consumption, I must, from attentive experience, give a decided preference to the tincture, when thrown into comparison with the powder. Not only a larger quantity of the former can be *gradually* introduced into the system with safety, but it likewise acts more powerfully and uniformly in retarding the circulation. A material difference, too, may be observed in their mode of operation; for, whilst the powder usually increases, and changes in point of colour the evacuation of urine, I have never, but in one instance, and that in a very slight degree, perceived a similar effect from the use of the tincture. Of the infusion or decoction, from my own observation, I can say nothing, not having yet applied either in this complaint; their efficacy in anasarca, however, I know to be great, and the success of Dr. FOWLER has sufficiently proved that they are not less efficient in phthisis.

I perfectly agree with Dr. MACLEAN, in thinking it a matter of the first consequence, that an uniform and standard tincture should be established by authority. I am also of opinion, that the *saturated* tincture, when duly prepared, will best answer this intention. I have lately made use of five ounces of proof spirit to one ounce of the leaves coarsely powdered, without any dilution of the colour, or diminution of strength or taste. Beyond this, however, it can offer no claim to the term *saturated*, as it becomes not only paler in colour, but weaker in flavour, and a larger quantity is required to produce a given depression of the pulse. Provided the digitalis be good, and the spirit accurately proof, the tincture, in the proportion of five to one, will be fully saturated, and will be, therefore, always of an uniform strength. Thus made, it appears of a deep brown colour approaching toward black, yet tinging
paper

paper or linen, when immersed in it, of a beautiful green hue; it has a strong narcotic odour, and leaves a nauseous and very bitter flavour on the palate. I have more than once, I am sorry to say, met with the tincture so improperly made, that it has been not much deeper in colour than brandy, and possessing little smell or taste. The *saturated* tincture should be closely confined from the air, and kept in a mild temperature; for, when exposed to any great degree of cold, it loses its transparency, and deposits a part of the digitalis in the form of a very fine powder. Another circumstance to be attended to in exhibiting the tincture is, that it be always dropped from the same phial, an ounce or two-ounce one, for instance, as the drop will be larger or smaller in proportion to the size of the rim of the phial.

With regard to the plant itself, I can assure Dr. MACLEAN, he is deceived in supposing it to acquire greater vigour from cultivation in a garden. Nineteen times out of twenty he will find the reverse to be the event. The digitalis delights in an elevated, a light and gravelly soil; on a fat and dense mould, in low and damp situations, and where strata of chalk abound, it always degenerates, becomes dwarfish, and of a paler green. Dr. MACLEAN's house at Sudbury, is certainly situated low, not far from the river, and in the immediate neighbourhood of large chalk-beds; on such a soil, it is evident, none of the habitudes of the plant can be gratified; and by the usual modes of improving a garden, the ground will be rendered still less fit for promoting its growth and strength. I have repeatedly seen it cherished in shrubberies for the beauty of its flowers, but never yet saw it attain the height and strength of the wild plant. In last July, I gathered at Bergholt, about six miles from this town, in company with Mr. TRAVIS, the surgeon of the above place, and Mr. BUNN, of Hadleigh, a very large quantity of the digitalis. It grows in profusion in this district, from the adaptation of the soil; and we nearly filled a common sized cart with plants gathered from the hedges of one field. A vast number of these were from five to six feet in height, and with stems and leaves of proportional size; the latter frequently of a dark dusky green, approximating to brown, exhaling a strong smell something similar to tobacco, and possessing an intensely nauseous bitter taste. The leaves of a brighter green, were smaller, and had *comparatively* little odour or flavour; the dark and dusky leaves too, were usually found upon the tallest and strongest plants. I have been the more particular in mentioning these circumstances, with a view to prevent, unless where the soil and situation are congenial to the fox-glove,

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its cultivation on garden ground, and, therefore, its consequent degeneracy.

The inferences which I have drawn from some well-known facts in physiology, and to which I am indebted for the use of digitalis in consumption, appear to me to have been misunderstood by Dr. MACLEAN, and to have been objected to upon insufficient grounds. In the present state of medical science, no man, who has duly cultivated it, and who wishes to distinguish his practice from empiricism, can or ought to exhibit a new and powerful agent without founding such exhibition on the deductions of science and analogy.* What I have delivered in the "Medical Contributions," on the probable action of the digitalis, is the mere chain of analogical reasoning, which induced me, when called to Mr. MARRIS, first to prescribe the fox-glove in consumption. When I reflect on the event of this case, and of some others which have since occurred, I may be allowed, I think, from motives of pure benevolence, to look back upon this association of idea with mingled emotions of pleasure and gratitude.

"There are some modern practitioners," observes Dr. DARWIN, "who declaim against medical theory in general, not considering that to think is to theorize; and that no one can direct a method of cure to a person labouring under disease without thinking, that is, without theorizing; and happy, therefore, is the patient, whose physician possesses the best theory."*

Impressed with the truth of this observation, I shall attempt to prove, and it will be no difficult task, I think, that what has been termed "a theory totally inadmissible," is but, in short, a statement of facts, drawn from broad experience, and that the only part which can merit the appellation of theory, is a mere analogical deduction arising from these facts. In order to render this more clear, I shall state, in numerical order, the different data. 1. Pus is a secreted fluid, the consequence of certain diseased motions of the extremities of the blood-vessels. 2. Hætic fever arises only from the matter of an open ulcer. 3. What is termed laudable pus, when secluded from the air, is neither capable of creating fever, nor, except by its gravity, can it irritate the parts on which it rests. 4. When pus is exposed to atmospheric air, it

* Zoonomia, vol. i. preface, page 2.

it rapidly attracts oxygen, and an acid of a peculiar kind is generated.
 5. Hectic fever is the effect of the absorption of aerated matter.

Now, should it be made to appear, that there is just ground for thinking these affirmations to be matters of fact, no one will, probably, deny that the curative processes are legitimately deduced, namely, either to promote absorption so rapidly from the surface of the diseased parts, that the pus shall be taken up as soon as secreted, and, consequently, its combination with oxygen prevented; or so powerfully to retard the motion of the heart and circulating fluids, that the irritating and morbid action of the extremities of the blood-vessels, and, therefore, secretion, as its immediate effect, should be considerably diminished, or altogether suspended.

As Dr. M. has admitted the probable truth of the first and fourth of these data, it will not be expected that I should occupy any portion of my paper in an attempt to prove what he himself has not chosen to controvert. It may, however, be of use to observe, that ample information may be obtained on these topics from BRUGMAN,* EVERARD HOME,† and DARWIN.‡ With regard to the second *datum*, namely, that hectic fever arises only from the matter of an open ulcer, Dr. MACLEAN affirms, that “daily observation contradicts it, and that in the early stages of consumption it is well known, that the hectic fever is often “clearly and distinctly marked, without any increased expectoration, and “when the tubercles are still in their infancy, and, consequently, before “they have suppurated.” And in a subsequent page, “that hectic “arises from collections of matter in different parts of the body, and “more especially from vomicae in the lungs themselves, without any “communication with the external air.”

That fever frequently arises during the formation of tubercles in the lungs, or from indurations of the lymphatic glands of the mesentery, and sometimes from encysted and unexposed matter, either owing to an inflammation of the walls of the vomica, or to the distension and gravity of the secreted fluid, is a circumstance of daily observation; but that this fever is one and the same with what is termed hectic fever, and which arises from aerated pus, the experience of the most celebrated practitioners will, I think, positively contradict. “The hectic now de-
 “scribed,”

* Inaugural Dissertation, Leyden, 1787.

† Dissertation on the Properties of Pus, 1788.

‡ Zoonomia, vol. i. and ii.

“scribed,” says CULLEN, “as accompanying a purulent state of the lungs, is, perhaps, the case in which it most frequently appears; but I have never seen it in any case when there was not evidently, or when I had not ground to suppose, there was a permanent purulency or ulceration in some external or internal part. Indeed, it appears to me to be always the effect of an acrimony absorbed from abscesses or ulcers, although it is not equally the effect of every sort of acrimony; for the scorbutic and cancerous kinds often subsist long in the body without producing a hectic.”*

So essentially different did these fevers appear to Dr. DARWIN, both in their causes and symptoms, that he has given them distinct appellations, and arranged them as distinct species, under the terms FEBRIS A PURE CLAUSO, and FEBRIS A PURE AERATO. “The former is distinguished,” he observes, “from the fever from aerated matter in open ulcers, because there are seldom any night sweats or colliquative diarrhoea in this, as in the latter. The pulse is also harder, and requires occasional venæsection, and cathartics, to abate the inflammatory fever, which is liable to increase again every three or four days; till at length, unless the matter has an exit, it destroys the patient. In this fever, the matter, not having been exposed to the air, has not acquired oxygenation, in which a new acid is produced, which acts like contagion on the constitution, inducing fever fits, called hectic fever, which terminate with sweats or diarrhoea; whereas, the matter in the closed abscess is either not absorbed, or does not so affect the circulation as to produce diurnal or hectic fever fits; but the stimulus of the abscess excites so much sensation as to induce perpetual pyrexia, or inflammatory fever, without such marked remissions. Nevertheless, there sometimes is no fever produced, when the matter is lodged in a part of little sensibility.”† On the FEBRIS A PURE AERATO, he says, “a great collection of matter often continues a long time, and is sometimes totally absorbed, even from venereal buboes, without producing any disorder in the arterial system. At length, if the ulcer has been opened, so that any part of it has been exposed to the air for but one day, a hectic fever is produced. Whence the utility arises of opening large abscesses by setons, as, in that case, little or no hectic fever is induced; because the matter is squeezed out by the side of the spongy threads of cotton, and little or
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* First Lines, vol. ii. p. 261.

† Zoonomia, vol. iii. p. 282.

“no air is admitted; or by tapping the abscess with a trochar. In this fever, the pulse is about 120 in a minute, and its access is generally in an evening, and sometimes about noon also, with sweats or purging towards morning, or urine with pus-like sediment; and the patients bear this fever better than any other with so quick a pulse.”* In speaking, too, of the FEBRIS MESENTERICA arising from matter formed in the mesenteric glands, he remarks, that the patient is destroyed by the continuance of simple pyrexia, or inflammatory fever; for, “as the matter is not exposed to the air, no hectic fever, properly so called, is induced.”†

I have had several opportunities of attending closely to the fever arising from mesenteric induration, both previous to and long after open ulceration had taken place among the muscles of the back, and I have observed an essential difference in the nature of the fever accompanying these opposite states. One melancholy case was under my daily observation in this place for more than four years. The patient was about sixteen, when I first saw him; was of a very scrofulous habit; and was supposed to have laboured many years under mesenteric indurations, and with all the symptoms likewise of tubercles in the lungs. His friends informed me, that several years ago, but long after his indisposition commenced, a considerable tumor appeared among the muscles of the back and loins, and which terminated in suppuration, and a large open ulcer: He was then attacked with all the symptoms of hectic fever, and it was the opinion of his medical attendants, that he could not survive long. Contrary to their expectations, however, the ulcer healed; the hectic disappeared; and he arrived in Hadleigh, I was told, precisely in the situation he had been in, previous to the suppurative process; that is, he had difficulty of breathing upon motion; an almost perpetual teasing cough, but no expectoration; an emaciated and contracted form; little thirst; great appetite; and an uniform, slight, and continued fever. In this state he remained for about three years, when two considerable tumours were again formed among the muscles of the back; and in spite of every preventive mean, suppuration largely followed, and with great pain. On consultation with Dr. GIBBONS, of this place, it was thought advisable, as the matter pointed outwardly, and occasioned much irritation, to evacuate the pus of both abscesses; they were accordingly

* *Zoonomia*, vol. ii. p. 282.† *Zoonomia*, vol. ii. p. 284.

opened by his surgeon, Mr. BUNN, and hectic fever with strong exacerbations, and all its train of symptoms, shortly followed, and terminated in his death about a twelvemonth after; the ulcers, notwithstanding every effort to promote inflammation, absorption, and consequent adhesion, never healing. This remarkable case always appeared to me, and long before I had seen the *Zoonomia* of Dr. DARWIN, as a decisive proof, that the fever following open ulceration, was essentially different in its nature from that which existed previous to it.

As to the third affirmation, namely, that what is termed laudable pus, when secluded from the air, is neither capable of creating fever, nor, except by its gravity, can it irritate the parts on which it rests; it should be observed, that pus, when first secreted, has been found by very accurate experiments to be a transparent fluid, and to assume the globular and opaque form only after it has rested for some time on the surface of the sore; when secluded from the air, fifteen or twenty-five minutes are required to effect this change, which seems, in a great measure, the consequence of the absorption of the inner parts. It is perfectly mild, and free from any corrosive properties, and following the laws of all secreted fluids, never affects, whilst in its original pure state, the surface which produced it. "It is always in harmony," says Mr. HOME, with the parts which form it, having no power of irritating them, even when the surrounding parts are affected by it. — This seems peculiar to secretions, and arises from the parts themselves not being susceptible of irritation from their own matter.* The absorption of pus in this its native state, produces no effect whatever upon the animal œconomy, whence the utility of stimulating the absorbents to take it up previous to any vitiation, or any exposure to the air. That fever, however, frequently arises from the formation of pure pus, is undoubtedly true; it is always preceded by inflammation, and sometimes by great pain; by its gravity also, and distension among neighbouring parts of great sensibility, the same effect will often be produced. This pyrexia, however, the result of the physical, not chemical properties of pus, may be accurately distinguished from hectic fever. Pus also is susceptible of many vitiated states, though secluded from the air; but the fever thence arising, and which is termed by DARWIN, *FEBRIS A PURE CONTAGIOSO*, presents no one characteristic of hectic.

In noticing the fifth and last division, namely, that hectic fever is
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* On the properties of pus, pages 59 and 61.

the effect of the absorption of aerated matter, I must refer to what has been already written under the second, what is there said being equally applicable to the present subject. It is of great importance, however, to add, that Dr. PRIESTLEY has by experiment discovered, that oxygen so greedily unites with animal substances, that it will pass through a moist bladder to combine with them; that BRUGMAN in his Thesis, likewise by experiment, found that pus when exposed to the air in a moderate heat becomes acidified; and that Dr. BEDDOES, from close attention to a variety of curious and minute phenomena, with great probability infers, that the state of body predisposing to phthisis, and which continues during the progress of the disease, is a state of hyper-oxygenation.*

Before I dismiss the subject, however, I cannot avoid commenting upon two remaining objections of Dr. MACLEAN, and which appear to be founded on mistaken and partial views. "If this were the case," observed Dr. M. (viz. that hectic fever is the effect of the absorption of aerated matter) "the thick bland matter secreted from every wound or ulcer, when exposed to a stream of air, would become an ichorous poison, and be productive of the effects mentioned by Dr. DRAKE; but that this does not in reality happen, daily observation sufficiently evinces." Now it occurs very unfortunately for this objection, that the recent improvement in the treatment of ulcers and abscesses, is precisely that of avoiding exposure to the air, and the consequent vitiation of the pus; for it has been the result of universal experience, I believe, that the action of the air on ulcers, in a greater or less degree, always produces acrimony of the purulent matter. "It is remarkable", says DARWIN, "that matter produced by suppuration, will lie concealed in the body many weeks, or even months, without producing hectic fever; but as soon as the wound is opened, so as to admit air to the surface of the ulcer, a hectic fever supervenes, even in a very few hours.—Hence, when ulcers are to be healed, it is necessary, carefully to exclude the air from them. Hence we have one cause which prevents pulmonary ulcers from healing, which is, their being perpetually exposed to the air."† Mr. ABERNETHY, who has met with great success in the treatment of lumbar abscesses, by gradually evacuating the pus with a trochar, and thence excluding the admission of air, attributes the hectic fever which follows, when air is incautiously

* Observations on Consumption, 93. † Zoonomia, vol. i. p. 299, 300

incautiously admitted, to mere inflammation of the walls of the abscess; but it remains to be proved, that simple inflammation has ever yet given rise to hectic fever. Were this the case, inflammation of the abdomen and of the tunica vaginalis testis from the admission of air, and of the coats of a vein after bleeding, would produce hectic fever; it should be recollected, that inflammation is the sole cause of the secretion of healthy pus; and when air is admitted to the sides of an abscess, it can only act upon their surface as a simple stimulus, occasioning fresh inflammation, and a further secretion of pure pus; these are, however, of themselves frequently sufficient to exhaust a patient already debilitated; but as hectic fever and a vitiated purulency are almost always the consequence of the exposure of an abscess or ulcer to the atmosphere, it would clearly seem to follow, that hectic fever is the effect of the absorption of pus, after it has received from the air some noxious material.

The last objection which Dr. MACLEAN has brought forward to the doctrine of the absorption of matter in phthisis, is, that ulcers are never healed by absorption, and that the surgeon should not endeavour to promote it. "Good pus," the Dr. remarks, "he would look for as a necessary consequence; nor would he, under any circumstances, endeavour to promote its absorption." This objection appears to me the more extraordinary, as it is the language of medical men, that no ulcer can be healed without absorption; nay, this process is absolutely necessary to the production of what is called laudable pus; for when first secreted, it is transparent and comparatively thin, and only acquires its opacity and consistence from the absorption of the more fluid parts; and even this laudable pus must disappear, though at first necessary to granulation, before the ulcer can heal. The following passages place this matter in a very clear light. "The art of healing ulcers," says the author of *Zoonomia*, "consists in producing a tendency to absorption in the wound greater than the deposition. Thus when an ill-conditioned ulcer separates a copious and thin discharge, by the use of any stimulus, as of salts of lead, &c. externally applied, the discharge becomes diminished in quantity, and it becomes thicker, as the thinner parts are first absorbed. But nothing so much contributes to increase the absorption in a wound, as covering the whole limb above the sore with a bandage; by this artificial tightness of the skin, the arterial pulsations act with double their usual power in promoting the ascending current of the fluid in the valvular lymphatics. Internally, the absorption from ulcers should be promoted

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“ ed first by evacuation, then by opium, bark, mercury, steel.” Again, “ no ulcer can heal, unless the absorption from it is as great as “ the deposition in it;” that is, ulcers cannot heal when “ the secretion of matter in them continues to be greater than the absorption “ of it.”*

From the whole of what has been now said, the two curative indications in phthisis, namely, either to promote the absorption of pus previous to its aeration, or so to retard the circulation as altogether to preclude the purulent secretion, will appear, I should hope, both obviously and accurately deduced. As to the digitalis, it has been found, by repeated experiments, to effect in curing consumption, either one or both these purposes, and even in incipient tubercular phthisis before ulceration has taken place; I suspect the great benefit received from the employment of this medicine, may arise from the absorption of the tubercles themselves. “ In what I have judged imminent consumption,” says Dr. BEDDOES, “ the digitalis has produced the most salutary effects in at least as many cases as it has failed. The fatal consequences “ of hæmoptoe have been prevented; and either the symptoms associated “ with tubercles removed, or (what I am disposed to believe, but time “ alone can fully decide) absorption of the tubercles themselves has taken place. An assertion like this, is, I am well aware, liable to be “ controverted; and it is incapable of absolute proof, since it is impossible to take tubercles out of a diseased thorax and exhibit them. “ The probability indeed of their existence is not always equal; but of “ the nature of the disorder, in most cases, I feel confident—so exactly “ similar were the appearances to those which I had so often observed “ before ulceration of the lungs in other cases; and it is scarce possible “ I should have misjudged in many of the instances: of this, not only “ the perfect identity of symptoms, but the coinciding opinion of more “ than one medical man, afforded security.”†

I have thus, in as brief a manner as possible, endeavoured to prove, that the opinions and deductions brought forward in the paper on phthisis, in the Medical Contributions, were not built upon slight grounds, but were the result of a survey of many physiological facts, which, when thrown together, appeared to me satisfactorily to account for both the salutary effects of digitalis, and the state of the system in phthisis. I
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* *Zoonomia*, vol. i. 410; vol. ii. 730.

† *Essay on Consumption*, 2d edition, page 303.

with it, however, to be recollected, that no obliquity or subserviency can attach to practice in consumption, in consequence of what has been delivered; the two facts with regard to digitalis, viz. its powers of promoting absorption, and its dominion over the heart and arteries, stand prominent and insulated from any set of opinions; and the cases too, in which its salutary agency has been recorded, can admit of no modification. The attempt to throw light upon the nature of an obscure but destructive disease, and to account for the effects of the most powerful agent yet employed in removing this disease, can only be productive of benefit: should it fail, it may have the merit of eliciting further and more successful inquiry; but should it approximate toward the truth, incalculable may be the utility conferred upon mankind.

I am, GENTLEMEN,

With great respect,

Yours, &c. &c.

Hadleigh, Suffolk, Oct. 28, 1799.

NATHAN DRAKE.

*On the Use of Digitalis in Consumption: by Dr. BREE,
of Birmingham.*

[Continued from p. 314—318 of our last Number.]

CASE 9.—Mr. Ralph Ward, aged 30, tall and thin, with a long neck, was attacked in Sept. 1798, with pneumonia, which I treated in the usual manner. In the beginning of the winter, I found his pulse nearly as quick as when I prescribed for him in Sept. He had a short cough, and a tightness in his breast; he had been subject to a cuticular eruption, which I then endeavoured to promote; but though it appeared very plentifully all over his body, there was not the relief which I expected in his breast; his pulse was never slower than 96, generally 100, and he had a good deal of languor. In April 1799, he spat bloody mucus for a few days.

1799, May 21st. He has a short and frequent cough—shooting pains in his breast—his pulse at 96—his belly costive—he has very bad nights from the cough—he does not complain of heat or chilliness. I prescribed pulv. fol. digital. in pills with extract. glycyrrhizæ: he was to take a grain and a half twice in 24 hours. I also directed equal parts
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of camphorated tincture of opium and oxymel of squills, to be taken at bed time, and occasionally in barley water.

June 20th, I had seen this patient at least four times a week, as he was diligent in his calls at my house since May 21st. I have not yet observed his pulse to be retarded; but yesterday the stricture over his breast was very troublesome—he had shiverings in the day and sweats in the night—his cough as troublesome as ever—he has some sickness at his stomach, with soreness in his chest and between his shoulders—his tongue is white—his belly costive—pulse 120. As this case was favourable, I had expected a different set of symptoms after so long an exhibition of fox-glove; I therefore reflected on the propriety of abandoning it for a more certain practice; but finally resolved to pursue the trial till his stomach was more affected, or his pulse became slower. I directed a blister to be applied to the breast, and the pills to be continued. June 23d, his pulse is slower than it has been, in all probability, since October last—it is only 68. His cough is less frequent in the day, but very troublesome in the night, with perspiration—June 24, pulse 62. I now changed the pills for a tincture of fox-glove, that he might modify the dose according to his pulse, or feelings of the stomach.—June 25, p. 60.—June 26, p. 54. The complaints of his chest and cough are nearly gone; his spitting was yesterday very slightly tinged with blood. Notwithstanding the progress of the case, he has no sickness of the stomach, nor any particular want of appetite. June 29, p. at 42; and with this altered state of the circulation, he has no particular inconvenience to complain of, he only feels generally low. July 7th, his pulse is at 40. I have seen him every day of this month, and have not found it to be more than 50 in any observation. He now took a better diet, with meat and porter sparingly; he continued the drops for several weeks, and his complaints have not returned.

In considering the above cases, a few reflections suggest themselves:

1. The cases of William Harrison and George Underhill were incipient, and the case of Mr. Ward was incipient. The two former were preceded by hæmoptysis, which continued occasionally in the progress: the latter was in my opinion tubercular, and the hæmoptoe was considerable.

However well recommended digitalis may have been in hæmoptoe, it had no material influence in checking the advance of phthisis in Harrison and Underhill, and the symptoms of pulmonic inflammation appeared

appeared to increase under its use in their cases, though the hæmorrhage abated. In the case of Mr. Ward, the quickness of the pulse was for many months the strongest indication of this insidious disease: we might have suspected the growing mischief from his short cough, and occasional slight pains of the thorax, accompanied by a pulse of 100 in a minute during the whole winter, even if his first attack in September had not been pneumonia, and required repeated bleeding.—A violent cough, with pain and expectoration, and a pulse of 80, would have given little alarm; when a short cough, trifling sitches, and no expectoration, were very alarming with a pulse generally above 100, and the heat of the body natural. In this state the power of digitalis may be said to have demanded the confidence of the practitioner in similar cases: the circulation was retarded without inconvenience to the patient, beyond my expectation; in fact, it acted as a regulator of the pulsations of the heart. If Mr. Ward took 30 drops of the tincture twice a day, his pulse was sure to be nearer 40 than 50 in a minute; if he omitted one dose in 24 hours, or diminished each of the doses to half, his pulse increased to 50 beats or a few more, and during this state of the circulation all his complaints disappeared,

The remaining six cases were too far advanced to have been capable of cure from any medicine; but it perhaps may be worthy of the humane practitioner's attention, that considerable distress was added by the effects of the digitalis on the nervous system, and function of the stomach: such effects are indeed looked for in some instances, when the pulse begins to correspond with the intention of the physician. In the case of Mrs. B. it is probable, that the continuance of the plan might have brought the pulse to 60; but she was not better for the alteration which had taken place; and the increase of strength after the medicine was left off, too plainly declared the cause of her rapid decline during its use. It was Dr. WITHERING's opinion, the 23d of May, that the anorexia was not owing to the influence of digitalis, because the pulse should have been slower than its natural standard, to correspond with the state of the stomach as proceeding from that cause. Facts are however opposite to this decision in all the above cases, excepting in that of Mr. Ward.

But when the function of the stomach is greatly injured, and little progress is made in retarding the actions of the heart, a considerate man will weigh with great caution the benefit he speculates upon, against the positive mischief in his view. In my opinion the future prospect
may

may frequently turn the scale, and the patient may enjoy comparative ease in his last days, if he have his digestion not worse than his disease may make it, and his strength and spirits only wasted in the gentle gradation which is the consequence of phthisis.

In support of this cautionary remark, the second, third, seventh and eighth cases are strictly in point. I would, however, more particularly attend to the second.—Mrs. C. had the appearance of living months longer, if the fullness of her muscles be considered. An internal hæmorrhage may have cut short the disease, but there was no evidence of such a cause; and the loss of irritability seemed to accompany the exhibition of the medicine, with the same characteristic marks of its injurious influence on the digestive organs as appeared in the other patients.

However painful it may be to take this retrospect, in which the good to be obtained from the remedy does not appear in so striking a light as in former accounts of practitioners, I join in the general acknowledgment of thanks to the ingenious physicians who have lately excited the attention of their brethren to a remedy for phthisis. It must however be allowed, that hasty conclusions are of no trifling moment to the peace of relatives and the comfort of patients; and with a view to prevent these, I have not been solicitous to conceal my want of success in the use of digitalis.

BIRMINGHAM, Oct. 12, 1799.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,*

NOT having read any one of the pamphlets that have been published by Mr. HULL or Mr. SIMMONS, on the subject of the Cæsarean Operation, I have no intention in what follows to enter the lists in favour of these disputants. But what has been advanced by the latter gentleman, in the last Number of your useful Journal, appears to me to re-

* We were under the unpleasant necessity of omitting this valuable communication in our last, on account of the great press of matter previously received.—EDITORS.

quire ſome notice, as it tends to overturn an eſtabliſhed rule of practice, by which our conduct ought perhaps on ſome occaſions to be regulated.

I agree with him, that the only caſe in which a thought of the Cæſarean operation can be reaſonably entertained, is, where the pelvis of a woman is ſo diſtorted as to prevent the delivery of a child, in any way, through its contracted aperture, and conſequently where, if nothing be done, the woman muſt die undelivered, and the child of courſe, though known to be alive, muſt periſh with her. I am willing too to concede, that from all experience hitherto had in this country, the operation will certainly be fatal; yet ſtill the queſtion is not brought to the point, as he has ſtated it; *whether the mother's life ſhall be ſacrificed to ſave her child?* becauſe ſuch a queſtion neceſſarily involves in it, at leaſt a tacit acknowledgement, that the mother's life can be ſaved, if no regard be paid to that of the child; for how can that be ſaid to be ſacrificed, which is already allowed to be devoted to certain deſtruction? If the queſtion be fairly ſtated, it amounts to this: *When the mother's life cannot poſſibly be preſerved beyond an exiſtence miſerably protracted for a few days, is it allowable to run the riſk of ſhortening this period for the ſake of preſerving the life of a child, which muſt otherwiſe periſh with her?* Perhaps, when the queſtion is thus put, Mr. SIMMONS will not ſo readily anticipate an answer in the negative. It is not improbable that Eliz. Thompson, the poor woman on whom the operation was performed at Manchester, ſurvived as long as ſhe would have done, if ſhe had been permitted to periſh undelivered, and ſuffered infinitely leſs both in body and mind. Human imagination can hardly conceive any thing more dreadful than the diſtreſſing anxiety of a woman in the pangs of labour, without hope of delivery: the few hours of her exiſtence after the birth of her infant muſt have been comparatively happy.

What Mr. SIMMONS has ſaid reſpecting laws human and divine, is totally irrelevant; none of your readers need be told, that taking away life does not in all caſes conſtitute murder; and his whole reaſoning on this point, applies with equal force againſt deſtroying the child, where that may be neceſſary, to ſave the mother.

Through the goodneſs of Providence, a pelvis ſo deformed, that a woman cannot, under any management, be delivered of a living child, is comparatively a rare occurrence; but one diſtorted to ſuch a degree, as not to admit of delivery, even when no regard is paid to the life of the child, is ſo very rare, that I have never, nor I truſt never ſhall meet with it. But as it is impoſſible to ſay what may happen, every practitioner

practitioner should have in his mind certain principles by which his conduct may be regulated under all circumstances. It may then, I believe, be laid down as a rule of practice generally followed in this country, that in no case shall the life of the unborn child be put in competition with that of the mother. The questions really occurring are therefore, Is the danger to the mother's life, such as to call for the sacrifice of that of the child? or, on the other hand, Is there good ground to believe that such sacrifice will be effectual in preserving the life of the mother? But not to take up your room unnecessarily, I beg leave to refer to Dr. DENMAN's excellent Introduction to Midwifery; a book that is, or ought to be, read by every practitioner in this country; where this whole business is discussed in so clear and comprehensive a manner, as I should have thought might have precluded all dispute, and will conclude this part of the subject in his words: "I am not willing to accept any other principle but necessity, as a justification of the Cæsarean operation; that is, whenever it is proposed, there shall be no other way or method, by which the life, either of the mother or child, can possibly be preserved; and the impossibility shall be confirmed, not by the opinion of one, but as many competent judges as can be procured. I should then consider this operation justified by every principle of religion, and the laws of civil society, by as decisive and satisfactory evidence, as any other operation, which we never hesitate to propose or to perform."

Thus far I have proceeded upon the supposition, that the operation is to be considered as certainly fatal to the woman upon whom it is performed; but although it has uniformly proved so in the cases that have occurred in this country,* these cases, about twelve in number, are by no means sufficient to warrant a conclusion, that there is no possibility of a more favourable event. A rupture of the uterus has been generally considered to be certainly mortal, and probably has proved so in twelve times twelve successive cases; yet we now know that women have repeatedly recovered from this most dangerous accident. A wound of the uterus then is not, nor can we conclude from twelve, twenty, or even fifty unsuccessful cases, that the Cæsarean operation is, in its nature, necessarily mortal. In so deplorable a situation therefore, even when we speak of the mother only, and set aside all consideration about the child,

* It has been said to have been twice successfully performed in England; but as I have not seen any satisfactory evidence of such operation, I forbear to mention these cases.

we may apply CELSUS's rule, *Melius est anceps quam nullum experiri remedium.*

Having then, I trust, brought the business fairly to this issue, that as cases have occurred,* and may occur again, which allow of no other possible way of delivery than the Cæfarean operation, and that as this operation affords an opportunity of preserving the child, and though a very remote, yet the only, chance of saving the life of the mother also, therefore this operation may be justifiable and necessary: It remains next to consider, whether the operation has been conducted in the best possible manner? or whether means may not be devised of affording a somewhat better chance of recovery to the unfortunate patient than has been hitherto done?

We can infer a priori, that wounds penetrating the cavity of the heart must necessarily be fatal, but no such reasoning will apply to wounds of the uterus; we must therefore seek for some other cause for the fatal termination of this operation. This perhaps may be found in the consideration that the subjects are generally such as no one would select to try the success of any operation upon; that this too is to be undergone in the time of labour, when the irritability of the constitution is very much increased. These circumstances, joined to the baneful effect of atmospherical air admitted into the cavity of the abdomen, may perhaps be sufficient to account for the general want of success. With regard to the subject on whom the operation is to be performed, all that can be in our power is, to take care that it be executed as early in the labour as possible. But to prevent the admission of air into the cavity of the abdomen, it appears to me something essential may be done which has not, as far as I know, been hitherto attempted. As, for instance, all the parts
concerned

* It has not appeared to me necessary to prove that such cases have occurred, because in the paper published in the last Number of the Journal, Mr. Simmons seems to allow this. But the Monthly Reviewers, in their criticism on another publication of his, Art. 8, for September, say, that they coincide with him in opinion, that this operation is now superseded by safer means, alluding to the remarkable case published by Dr. Osborne. Where these safer means can be applied, I perfectly agree with this opinion; but surely, in such a case as that of Elizabeth Thompson, where no part of the child could be touched with a finger, even when the whole hand was introduced into the vagina, no one acquainted with such operations can believe, that the greatest skill could, by any known means, have extricated a full-grown child through such a pelvis. I have by me casts of the pelvis of two subjects upon whom the operation was performed in London, a mere inspection of which will lead to the same conclusion.

concerned in the operation might be kept under water of a temperature duly regulated, not only during the performance of it, but until the wounds were healed, the process for which would probably go on as well under water as we know it does under a poultice; at the same time a free outlet would by these means be given to the discharges from the vagina. If this scheme should be thought impracticable, still an attempt might be made, though, in a less perfect way, to exclude the atmospheric air. When the line of incision through the integuments should be fixed upon, two slips of adhesive plaster, spread upon thick, soft, and elastic leather, such as doe or buck skin, of a sufficient breadth to secure a firm hold of the skin, might be fixed close to this line; and immediately after the operation, these strips of leather might be neatly sewed together with a glover's needle, and the future covered with wax softened with oil. Or perhaps it may be thought better to cover a large portion of the abdomen with such a plaster, and to make the incision through the leather and the integuments at the same time, sewing the edges of the leather together after the operation as before proposed. Nor is it sufficient to guard against the admission of air by the incision made through the integuments; this will likewise readily find its way up the vagina, and through the wound in the uterus. This would be effectually prevented by the first scheme of keeping the parts immersed in water; or the air might be in a great measure excluded, by keeping the external parts closely covered with any oval vessel filled with a soft poultice, that might fit close and fit easy. Wishing only to give the principle of what is to be done, and to leave the means of executing it to the ingenuity of the operator, these hints may suffice.

NEW BRIDGE STREET,

JOHN SIMS.

Oct. 21, 1799.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IT was my original intention, in discussing the subject, not to advert to any particular instance of the Cæsarean operation; but, in consequence of the introduction of my name, and that of Mr. OGDEN, into the account of the case lately published by Mr. WOOD, in the fifth volume of the "Memoirs of the Medical Society of London," I feel myself called

called upon to say a few words in reply. It is the more necessary, in the present instance, as some facts are omitted which bear materially on his conclusion; and as the propriety or impropriety of performing this operation must rest on the result of well-authenticated cases, the public have a right to expect the fullest evidence upon each of them respectively. At the request of Mr. OGDEN, I visited the poor woman, as stated by Mr. WOOD, and from the information I gained upon an inquiry, it appeared to me to be one of Dr. OSBORN'S crotchets-cases; this was the opinion I gave to Mr. OGDEN, who thereon determined, for reasons of a private nature, in which I was personally unconcerned, to send her to the Lying-in-Hospital in Manchester; of course, no attempt was made to deliver her.

From the manner in which our names are introduced, coupled with his remarks on the case, Mr. OGDEN and myself are compelled to infer, that it was the writer's intention to impute the woman's death to our mismanagement. Whether this imputation be well founded, the public will now be enabled to determine.

She was conveyed in a cart, as stated; but it should have been also inserted, that she was placed on a feather-bed, which was slung with cords in imitation of a hammock, by which the ruggedness of the road would be counteracted. Mr. WOOD'S general conclusion is, that "her death was not occasioned by the operation, but by a gangrene that had taken place in the *cervix uteri*, which in my [his] opinion, must have been occasioned by the pressure of the child's head prior to the operation; and I am induced to believe, had the operation been performed earlier, and at the patient's house, she would have stood a great chance of recovering."

We are still left to conjecture what time is deemed early enough to give the patient a "great chance of recovering" after this operation; twenty-four hours is usually deemed the term of a natural labour, when no adventitious help is required. This woman was taken in labour about one o'clock on the Monday morning;—I saw her, in company with Mr. OGDEN, at nine;—she arrived at the Lying-in-Hospital about one; and the operation was performed at nine the same evening. The delay then occasioned by her removal was *four* hours;—the time that elapsed after her arrival at the Lying-in-Hospital, before the operation was performed, was *eight* hours;—and from the commencement of labour to the time of the operation was *twenty* hours.

If inflammation had existed prior to the operation, as Mr. WOOD has stated, it must have been marked by the usual symptoms; Mr. OGDEN and myself are certain that it did not exist at the time we saw her, both from the calm state of her pulse, and the perfect intermission between the pains. No notice is taken by Mr. WOOD of the state of the pulse prior to the operation; nor is it observed that the pains had any peculiar character, which must have been the case, had inflammation existed from the cause alledged; it is simply stated, that they were *very frequent*.

But, if inflammation of the uterus had come on after we saw her, yet previous to the operation, how comes it that it was not discovered? The day after the operation, she was thought to be in no danger; and twenty-five hours from the time of performing it, her pulse beat only 108 strokes in a minute. The following morning, we find that the pulse had increased to 120; at noon of the same day it beat 144; and on Thursday morning, at seven o'clock, it beat 150. Thus most distinctly marking the progressive increase of the disease, as caused by the operation; for it is impossible that the pulse should have continued at so low a number, for so long a time, if inflammation of the uterus had existed prior to it.

Gangrene is said to have been discovered, on dissection, in the "inferior portion of the body and *cervix uteri*." If it had been occasioned by the pressure of the child's head, as asserted, it must have had an appearance corresponding to the form of the body which produced it; but this circumstance, which would have been almost decisive of the cause, is not alluded to. That it should have been occasioned by the pressure of the child's head, is, indeed, extraordinary. In other instances, the head shall be jammed in between the bones of the pelvis, for twice the length of time that elapsed from the coming on of labour to the performance of this operation, without any material inconvenience ensuing to the mother after her delivery. In this case, in Mr. WOOD's opinion, and I should be sorry to mis-state it,—the intermitting contractions of the uterus, pressing the child's head against a part of its own body at each contraction which was again resisted by the soft, elastic substance of the abdominal muscles, brought on inflammation, terminating in gangrene, though suffered to continue but for a few hours. It should be remembered, too, that the upper part of the head of a child, at the time of birth, is composed of distinct bones so loosely connected together as to admit of being lapped over each other when compressed, and yet so elastic as soon to recover its original shape on removal of the pressure,
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which must materially lessen the chance of mischief from its acting mechanically. And from the position of the child in utero, and the peculiar curvature of the spine, it is highly probable that the mere weight of the lower parts of its body, would retract the head from pressing against the uterus, at each interval between the pains. Yet this was the part, according to Mr. Wood, that by its pressure for so short a time, produced gangrene of the uterus. It is obvious, from the extreme narrowness of the pelvis, that the head could not descend, so as to press the uterus against any of the bones of which it is composed. Mr. Wood does not mention that the natural shape of the head was at all changed.

In performing the operation, Mr. Wood made an incision through the common integument and abdominal muscles, to the extent of six inches; he then made a corresponding incision through the body of the uterus. An incision of the nature of the former, as largely exposing the cavity of the abdomen, has been usually deemed dangerous; and a large wound of the uterus has been commonly looked upon as mortal. The diseased appearances observed in the abdomen prove the existence of peritoneal inflammation, and of inflammation of the intestines; ten or twelve ounces of bloody serum were found extravasated into the cavity, together with some coagulated blood. By referring the cause of her death to inflammation of the uterus, terminating in gangrene, and caused as abovementioned, Mr. Wood has regarded these appearances as of little moment, though peritoneal inflammation, or inflammation of the intestines, when singly existing, proves frequently mortal, even when not attended with any extravasation of blood.

The quantity of blood lost during the operation was about eight ounces; how it was disposed of, he does not tell us; neither does he mention how long the cavity of the abdomen was exposed; nor whether the epigastric artery was divided in the operation, which is probable from the direction of the incision; yet these are points which some may think material, as tending to ascertain the real cause of her death.

But admitting that inflammation existed in the uterus prior to the operation, let us next inquire into the propriety of the after-treatment, under these circumstances of accumulated danger. In inflammation of the uterus, as well as of the intestines, the disease is most powerfully combated by bleeding, which is directed to be employed in such cases, as far as the constitution of the patient and strength of the pulse will bear. It is observed that the pulse was *hard* at different periods of the disease,

disease, yet both general and topical bleeding were entirely omitted. In inflammation of the uterus, and of the intestines, the frequent injection of clysters is generally insisted on. In this case, though inflammation of the uterus is said to have existed at the time of the operation, the first clyster was not injected sooner than seventeen hours; the second, not till Wednesday noon, after an interval of thirty-nine hours; and forty-eight hours had elapsed from the time of the operation, when the blistering plaister was directed to be applied to the abdomen. Indeed, it does not appear that the precaution of injecting a clyster previous to the operation had been attended to, though the woman had been then eight hours in the hospital.

Upon the mature consideration of the above, which are the leading circumstances of this case, the professional reader will be enabled to decide upon the probable cause of the patient's death; and whether it was occasioned by gangrene of the uterus, brought on by pressure of the child's head prior to the operation; or what greater chance for success there would have been, had the operation been performed earlier, and at her own house.

Mr. Wood's opinion pre-supposes little danger to attach to the operation itself, as her recovery would, in that case, have been confidently reckoned upon. A large incision made into the uterus and its consequences, extravasation into the cavity of the abdomen, peritoneal inflammation, and inflammation of the intestines, are as confidently rejected, as being insufficient to account for her death.

Upon such inconsequent reasoning is this operation to be persisted in? an operation which, in my opinion, is *in itself mortal*, and which has certainly proved mortal in this country in every instance. When a question is to be decided by numbers, the voice of an individual will be of trivial import; but whether this operation will be permitted to be performed in opposition to reason and fact, time will shew.

These observations would have been more properly placed in the volume containing Mr. Wood's account; but as that is now impracticable, I am persuaded, from the zeal to promote the true interests of the profession which you have manifested, and from your candour and impartiality, that you will give them insertion in an early number of your publication.

MANCHESTER, Oct. 27, 1799.

W. SIMMONS.

NUMBER X.

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To the Editors of the Medical and Physical Journal.

GENTLEMEN,

AFTER the embarkation of the continental expedition, under the orders of His Excellency, Sir RALPH ABERCROMBIE, the command of which has since been assumed by His Royal Highness the Duke of YORK, I conceived the thought of sending occasionally, for insertion in your extensive Miscellany, such cases of the gun-shot kind worthy of remark as should come within my observation; such, I presume, must also have been the determination of many of the medical men employed on this service; and, most probably, ere now, you may have from this quarter, communications before you: still, however, should room be found, even in a secondary way, for these, I shall feel my purpose completely fulfilled.

I am, GENTLEMEN,

Your most obedient and humble servant,

*Schagen, North Holland,
October 16, 1799.*

J. CHRISTIE, 27th Foot.

Before entering on my plan, I must first beg your indulgence to introduce here a few prefatory observations, not unconnected with the subject, together with remarks on gun-shot wounds in general; and although I am afraid these by some will be thought strange and foreign, still I conceive them, in some measure, necessary, for reasons that may presently appear. First of all, I must not raise the hope, or express the assurance, that what I may have to say on this subject, has not before been handled in a much abler manner by other pens: of this I am fully aware, although some of those hints may have escaped writers, or have been thought by them of so little importance as to be unworthy of notice. Great allowances will, I am sure, be made for the circumstances of local situation; for here we are removed from the assistance of men or books—I have neither to consult; it may therefore happen that, while I am buoying myself up with the thought of some of my remarks being *original*, the public eye may regard them only as hints borrowed, at the same time that their importance is but little. In meeting this last opinion, however true, I would here beg leave to reply, that in very many situations in which man must act his part, too little attention has frequently

frequently been paid to matters considered small, and the expression—"Take care of small things, the great will take care of themselves," is neither without it's meaning or importance. What one man does, I maintain it, another may. The slightest actions, or even expressions of an individual, have frequently marked his true character, as certainly as if all his motions had been observed, and all his thoughts been revealed from his cradle to his manhood:—to speak plainly, the surgeon who applies a bandage clumsily, or uses his lancet awkwardly, I should be by no means ready to come under the *cut* of his great knife.

Hoping, as I confidently do, that allowances will be made for any inaccuracy or deficiency that may happen in consequence of local situation, (and few are the leisure hours) I must likewise not forget to intreat consideration on account of personal circumstances for the regimental practitioner. It must be obvious, that he has but few advantages, and but little opportunity for observation; since, as you well know, on all services, the worst cases are intrusted to the staff of the hospital department; and as a great majority of the wounded here have been sent to the different military hospitals in England, my views will be in some measure retarded, since those were principally to observe the progress and termination of hurts in all their varieties, and through all their stages. It is, however, principally the trammels of a subordinate station, that I have most to regret, in preventing those remarks from being so useful as could be wished.

In barbarous times, among savage nations, it had been customary for the combatants in war to poison their weapons of destruction; such has been said to have been practised in later times, and among people dignifying themselves with the name of civilized and polished. It was from this source, no doubt, that the idea of the nature and treatment of gun-shot wounds being mysterious, had first arisen; and even still, among ourselves, I cannot help remarking it, a remnant of that pedantic sort of importance, nourished by narrowness of soul, may be seen occasionally wielding her dark implements: but as the reign of superstition draws to a close, that of reason hath generally succeeded, and gun-shot wounds have been long known, at least in Europe, to require no other treatment but that of contused and lacerated injuries. In some respects, however, they are certainly different as to their mode of infliction; the course a musquet-ball sometimes takes, is so remarkable as to describe almost the half circle of the body, sometimes winding, sometimes even
retrograde;

retrograde; and this singularity hath been long ago observed by army surgeons, and even noticed by that favourite of nature and ornament of art, Mr. JOHN HUNTER.

The turning course, which a musquet-ball frequently takes on entering the body, may be accounted for by a fact well known to the artillery-men and *sharpshooters*.* A cannon or musquet-ball, in its passage through the air, hitting some firm resisting body, shall be seen to move directly out of it's straight course, and to take one laterally, or ascendingly. By way of illustration, let us suppose the head of a pin fixed on a billiard-table, and struck by the moving ball centrically, its straight course would be altered to an ascending one; if the ball strikes more or less laterally, so will its course be altered more or less oppositely. Thus it is with cannon and musquet-shot; for, during the action which happened upon our landing, the 27th of August, on that bloody shore bordering the Texel, the sand hills afforded a sort of covering for the combatants; a convenient retreat for the medical people to dress their wounded; yet, still, behind those protecting eminences, I was surprised to find an accident or two from shot, at the very instant of dressing. I looked to my right, there was the sea, from which a gun-boat or two only plyed well their carronades; on my left was a plain, on which the enemy's cavalry were placed to watch our motions; from neither of these quarters could the balls have proceeded. I now observed several men wounded by the enemy in front, although placed in a situation where no shots could have reached us, but by this turning sort of course I have attempted to describe. Now, a ball striking the head, a rib, or any other bone, and glancing along them, as it frequently does, without any material injury, must undoubtedly be owing to its meeting laterally the resisting body, by which its force will be but partially impeded. Thus I have been sometimes surprised to find in gun-shot wounds in the extremities, that the bone remained sound, where the ball had *seemingly* entered directly upon it, passing over it.—It is therefore probable,

* These last are light armed infantry, generally using rifled pieces, and dressed in green cloathing. They are detached among woods and on road sides, for the purpose of scouring and preventing surprise; they are called by the Dutch and Germans, *Jägers*, and *Grün Jägers*; for steadiness and precision they are said to be vastly superior to other troops; and our continental friends, as well as enemies, seem to employ more of those riflemen than the English. This is by no means fair; for these fellows, skulking in woods and thickets, like serpents, prepare and send their deadly messengers on many an open and unwary soldier with dreadful exactness.

bable, that in shots from musquets, the bone is seldom fractured, unless the ball strikes centrally. Hard and firm bodies frequently alter the course of balls, so that death or injury is sometimes prevented; we also know that elastic substances, particularly when lubricated, possess this quality in a very eminent degree. It seems extremely likely, in many of those lucky shots which had penetrated the cavities of the thorax or abdomen, mischief had been prevented by the yielding quality of the lungs or intestines; and thus, in some way, the course of the ball changed, and prevented from entering their substance, analogous to packed wool or hair, &c. which are known to resist powerfully the entrance of penetrating round bodies. When we reflect for a moment on the maternal care by which Nature has so admirably provided against accidents to important parts; the serpentine course the carotids assume on visiting the most wonderfully intricate and essential part of all animal machines; and, indeed, the provident manner in which the whole arterial system is distributed, and the thousand other accommodations she universally provides for the preservation of the animal: it is not at all an improbable conjecture, that the omentum may be placed on the intestines, partly for the defence we have been speaking of, since in most animals it became indispensably necessary, that the abdomen should have fleshy walls.

Although experience may have taught, that the lungs and abdominal viscera may be penetrated by bullets, and followed by recovery, I believe the well authenticated cases on record are but few, and that many of those at least, which had passed in from one side, so as to come out at the other, had left the viscera unhurt; for it is to be observed in gun-shot wounds, that there must be always a considerable destruction of the surrounding parts, unavoidably arising from laceration; and thus, the sloughing must be both certain and extensive.—The velocity with which balls enter, may tend, in wounds of the thorax and abdomen, to prevent mischief by little or no opportunity being given for the entrance of the external air—the wound closing like a valve—the consequent coagulable effusion and inflammation continuing in a great measure afterwards to shut up the orifice.

An officer of rank in the army, while serving in the West Indies in 1796, received a musquet ball, which lamed his hand; and almost immediately afterwards, another entered a little to the right of the left breast, i. e. between it and the sternum, the ball carrying along with it a piece of shirt and flannel waistcoat; it came out almost opposite,
but

but more outwardly, i. e. about two hand breadths from the spine.—The consequence of this wound was great oppression, difficulty of breathing, and occasional bloody spitting. Both orifices continued long to discharge, and he returning to England soon after, apparently in a state of consumption, was desired by the first medical advice in the kingdom, to adhere to a proper diet, chiefly consisting of milk and vegetables, and to trust the cure to Nature.—There was not any emphysematous appearance; but after twelve months languishing with distressing pain, cough, and dyspnoea, he was reduced to a mere skeleton—his spirits fled—he became peevish—refused nourishment, and was given up for lost; until an extraordinary accident, which, if it were not well authenticated, I should hardly be ready to communicate. The house in which he resided having been extraordinarily illuminated, on account of the victory gained by Lord DUNCAN over the Dutch in 1797, and the room in which he slept being in an high situation of the house, the smoke of the candles brought on such an intolerable fit of coughing, that a great quantity of frothy, bloody matter (or as he himself expressed it, all kinds of devils) came up, which had nearly suffocated him. Although his room was almost immediately changed, he remained the whole night, and for several days afterwards, in the greatest distress from the cough and dyspnoea.—After this, however, he gradually recovered—his cough left him, and with it all expectoration—he regained his appetite and strength—one wound entirely healed—the other continued to discharge, and occasionally to exfoliate a little bone. Twelve months after the accident, it discharged a hard substance, which was afterwards found to be a bit of flannel waistcoat, encrusted with an earthy kind of matter.—After this, he perfectly recovered, with only a slight hollowness of voice, and occasional pain in the side, on any extraordinary exertion. From the imperfection in the voice, it is probable, the substance of the lungs had been penetrated. The same officer, in the action on the coast of Holland, on the 27th of August, received a musquet shot, which glanced along the squamous portion of the temporal bone, carried away a portion of the orbit, and entirely destroyed the left eye: and although he is thus, as it were, broken winded, blind, and lame from wounds, he is yet healthy, active, vigorous, and in good spirits!

When speaking of the eye, I would here beg to mention, that very obstinate ophthalmies were frequently occasioned on the coast of Holland, by the sand blowing between and within the eye-lids.—This
sand

fluid was so fine and penetrating, that I believe it insinuated itself into every aperture of the human body: I have observed in those, as well as other ophthalmies, that resist for a time the antiphlogistic plan, as bleeding, saturnine applications, &c. another sort of treatment soon becomes necessary—the division of the turgid vessels on the conjunctiva, by the edge of a lancet, as mentioned by Dr. CULLEN, I have constantly found, *at first*, to afford considerable temporary relief, as well as leeching and cupping. Blistering is almost always very serviceable, but principally after the disease has been of some standing, and then it appears to be useful by its stimulating quality; for the vessels, after having been long turgid, become languid and inactive; and being principally connected to an unyielding substance, they lose the power of lessening their diameters to their original size.

In obstinate ophthalmies, I have frequently admired the care which Nature has seemingly taken to prevent suppuration; for here its formation is both less frequent, and less extensive, than we would à priori expect; and it appears to me, by no means unlikely, that the blood, on entering the coats of the eye and its appendages, may undergo such a change, as to render it less fit for the formation of pus; it may possibly part with its coagulable lymph; and, from the astonishing secretion that sometimes happens in the lachrymal glands of children and hysterical women, we would be led to imagine, that there was an excess of the watery part in these vessels.

[To be continued in our next Number.]

To the Editors of the Medical and Physical Journal,

GENTLEMEN,

AS there are not many cases on record, similar to the one described in the annexed paper, you possibly may think it worthy a place in your valuable Publication.

I am, GENTLEMEN,

With great respect,

Your most obedient humble servant,

Croom's Hill, Oct. 12, 1799.

S. GILLAM MILLS.

SOME time in July 1797, I was casually consulted by a lady, who imagined herself two or three months gone with child; her complaints were

were pains in the back, attended at times with the sense of bearing down, and appearances of catamenia; hence she imagined she was about miscarrying. Knowing her aversion to any medical regimen, I only advised her to keep as much as possible in an horizontal position, and to pay due attention to the state of her bowels. Several weeks after I had given this advice, I met her maid, who informed me, that her mistress continued much as when I saw her; from this, I hinted as my opinion, that she was not pregnant.

When my patient had supposed herself to be five or six months gone, I was desired (unknown to her) to visit her; she was then on the bed, and told me she had had throughout the day regular pains, with some discharge; but as she thought the pains were not sufficient to require my assistance, she had neither sent to me or the nurse, being strongly averse to having either with her till absolutely necessary. I desired the family would immediately send for the nurse, to whom I gave directions that were proper, for obtaining a due information respecting the nature and quantity of the discharge. In a little time, I was convinced that the flooding was considerable, particularly in time of pain; I took the earliest opportunity to examine my patient by the touch, and found the vagina filled with what I imagined to be coagulated blood. The os uteri low down, lax, and dilated about the size of half a crown. After this examination, the hæmorrhage nearly ceased, but soon returning to an alarming degree, I determined to seek for the fœtus and deliver. On introducing my hand for that purpose, the uterus forcibly contracted, and filled my hand with what I thought clots of blood: at that instant my patient was seized (as she called it) with a most violent cramp in her belly, and was attacked with an universal rigor; under these circumstances, and sensible that the flooding had ceased, I desisted from pursuing my intention of delivering, and administered wine and such other remedies as the occasion seemed immediately to require. At this time, the rigor and coldness were like the paroxysm of a severe ague, but the pulse, though quick, was not alarmingly low. When my patient had regained her natural warmth, I was solicitous to ascertain the state of the uterine discharge; I found hardly any, I therefore employed myself in clearing the bed from the collected coagula; when, to my surprise, I nearly filled a basin with innumerable hydatids, of various sizes, from a large Portugal grape to a small pin's head. The whole, so cleared, measured three pints and four ounces. The lady recovered her accustomed share of health, as patients usually do after violent floodings, and I believe she has not proved pregnant since. She has
had

had many children. After the birth of the two last, her life was in imminent danger, from a flooding that ensued soon after the expulsion of the placenta:—I say the expulsion of the placenta, because it came away each time with scarce any assistance beyond the natural pains.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

YOU did me the favour to insert in the second number of the Medical and Physical Journal, some Observations on the Brunonian system of medicine; which were made in consequence of reading an article in the first Number of this Journal, extracted from an essay written by Professor HUFELAND, of Jena, intitled, “Remarks on the Influence of the Brunonian System on the Practice of Medicine.” Since that time a very valuable work has engaged my attention; it is a Treatise on Febrile Diseases, by Doctor WILSON, Physician to the County Hospital at Winchester. In this work are some observations on the above system. It will be observed, that Dr. WILSON is an advocate for this system of medicine, although he differs in opinion with the author, in several particulars.

I could wish to offer some farther remarks on this subject; for either my perceptions of the Brunonian doctrine are incorrect, or Dr. WILSON has charged the author of it with some inconsistencies, of which he may be acquitted.

SECTION II. page 460 of the above TREATISE.

“OF THE BRUNONIAN DOCTRINE.”

“Of the medical systems which have been proposed to the world, BROWN’S alone is in a great measure founded on observation; many parts of it are simple deductions from facts, which must be admitted, independent of all hypothesis. In a more advanced state of our science, when the systems of STAHL, HOFFMAN, BOERHAAVE, and CULLEN are forgotten, there will still remain enough of the Brunonian doctrines to preserve the memory of their Author.”

This quotation proves that Dr. WILSON is friendly to the general plan of the doctrine. I shall now state some parts of it where material differences of opinion are found to occur.

OF THE EXCITABILITY.

Page 473.—“ One of the most striking inconsistencies in the writings of Dr. BROWN is his supposition, that every living body, at the commencement of its existence, receives a certain quantity of excitability, which, if not extinguished by violent stimuli, or by too great an abstraction of stimuli, will last for a certain length of time. The quantity received (he supposes) determines the natural duration of life, it being impossible to protract it after that quantity is exhausted.”

I have very little to offer with respect to the essence of excitability, it being one of those things which must ever remain above the reach of human comprehension. Yet I think, that Dr. BROWN's ideas of the vital principle, founded on excitability, assists us in accounting for the different phenomena which attend the living state, better than any other supposition with which I am acquainted.

Such, however, is the imperfect state of human knowledge, that it is possible his supposition—that every living body, at the commencement of its existence, receives a certain quantity of excitability which determines the duration of life—may be erroneous; but whether this supposition be just or erroneous, is not of importance with regard to the general principle or practice. Whilst life remains, the property which distinguishes it from dead matter exists in the system, and will be forced into action, if excitement can be effected; for, the only difference between apparent and positive death consists in the presence or absence of excitability.

“ We know not,” Dr. BROWN observes, “ what excitability is, or in what manner it is effected by the exciting powers. But whatever it be, whether a quality or a substance, a certain portion is assigned to every being upon the commencement of its living state. The quantity or energy is different in different animals, and in the same animal at different times.”

OF EXCITEMENT.

Page 506.—“ By excitement,” Dr. WILSON observes, “ is not necessarily implied contraction, because the term is not confined to the muscular system; the nervous system, however, cannot be excited, without occasioning a corresponding change in the muscular.”

The

The means used for the recovery of persons apparently dead from submersion, serve to shew that it is the muscular fibres of the heart and arterial system, which must first be excited to ensure success. When excitement is produced in this system, which may be considered as muscular, then a corresponding change is occasioned in the nervous system, and *sensation* returns.

The blood having lost its stimulating effect, in consequence of the communication with the air of the atmosphere being interrupted, is the immediate cause of death after submersion; for, according to Dr. CRAWFORD's experiments, the heat contained in arterial blood, compared with the heat in venous blood, is as 1.0300 to .8928;—the left auricle and ventricle having been accustomed to a stimulus derived from an external agent equal to 1.0300 will not contract upon the application of a stimulus only equal to .8928, and positive death will be the consequence, unless we, by inflation of the lungs, succeed in restoring the lost degrees of stimulus, before the excitability is too far withdrawn.

If by excitement, contraction is not necessarily implied, it must be included in the effect, contraction being a principal and constant effect produced during life by a stimulus in the blood, and regulated by the degrees of it; for according to the degree is the excitability inherent in the muscular coat of the arteries *forced* to make regular or healthy contractions, or irregular and unhealthy.

Dr. WILSON does not approve of Dr. BROWN's definition of excitement, page 516.—“ I do not adopt Dr. BROWN's definition of excitement, that it is the effect of agents on the living solid, because they often produce a state very different from excitement—Atony.”

Dr. BROWN's system of Medicine is remarkable for the simplicity of distinctions and terms of science; the distinctions apply to practice, and the new terms, which are few in number, convey clear ideas.

The imperfect state in which this author found the science, made it absolutely necessary for him to employ terms which were not till then in use, and which I think are unexceptionable.

The division of universal diseases (diseases of the system) is allowed to be correct, and I think the words which he has used to mark the distinction here made, could not have been more appropriate,—Sthenic, Astenic.

Dr. WILSON defines excitement to be "a state of activity, and atony a state of inactivity; that is, of debility, &c."

I do not agree with Dr. WILSON, that the exciting powers produce different states, therefore do not see any necessity to contrast the words atony and excitement.

If Dr. BROWN, to express a weak stimulant, as water, &c. had employed the word *sedative*, by contrasting the terms *stimulant* and *sedative*, a false idea would have been inculcated; therefore it is preferable to reject the term *sedative*, and to say that water, although a very weak, is still a stimulant.

"Distilled spirits," Dr. WILSON observes, page 479, "received into the stomach, occasion excitement; and, to a certain extent, the greater the quantity, the greater the excitement. But the immediate effect of a large quantity of distilled spirits, suddenly received into the stomach, has often been instant death. Is this excitement?"

There does not appear any thing favourable to the supposition of atony from this argument. In these cases, a degree of stimulant power is suddenly applied, which is found to be incompatible with the excitability, and, on that account, life is extinguished—were it compatible with life, the term excitement would be allowed by Dr. WILSON.

The electric fluid is a stimulant of the most powerful kind; the greatest degree of excitement, consistent with life, may be communicated by this agent. But such a degree of stimulus may be suddenly derived from the electric fluid as to put a period to excitement, because the excitability is totally destroyed by the sudden and violent shock, to which it is unequal, and which it could not sustain for a moment.

From considerations of this kind, I think that the term atony, when opposed to excitement, either conveys an erroneous idea, or is without a signification.

[To be Continued.]

An Historical View of Surgery in the Sixteenth Century.

[Concluded from p. 364—368 of our last Number.]

THE obstetric art, this important branch of surgery, began to emerge from its barbarity during the sixteenth century, and to excite the attention of surgeons more than it had hitherto done. There appeared several introductions to midwifery, the greater number of which, however, contained much useless and abstruse reasoning on the generation of man, and the vitality of the embryo in certain months, while they were extremely deficient in well-founded and practical rules for facilitating delivery.

Most of the writers of that century followed the principles of EUCHARIUS RÖSSLIN, sometimes called RHODION; who wrote, in the German language, a work printed at Augsburg, in 1551, 8vo. entitled, "*The Garden of Roses for Pregnant Ladies and Midwives.*" His representations of the preternatural situation of the child; his proposals for accelerating the expulsion of the fœtus by emollient external applications, and stimulants administered internally; his advice to pay constant attention, that the child's head may be protruded first; and lastly, his rule that the dead child should be extracted with hooks, knives, and other dangerous instruments;—all these particulars have been repeated by the obstetric writers of that age, without any essential improvement. Thus, VALLERIOLA* praises the surgeons in Provence, who handled these destructive weapons with great skill and ability.

JASON A PRATIS† also wrote a Treatise on Midwifery, which abounds in whimsical and absurd notions; inasmuch, that it scarcely contains one original or sensible idea. Not less inconsistent is the Treatise entitled, "*The Book for Midwives,*" written in German, by WALTER HERMAN RYFF, printed at Frankfort, 8vo. 1569. JACOB RUEFF, a surgeon at Zürich, on the contrary, is the author of a work, which, besides the principles of the Arabian writers borrowed from RÖSSLIN, contains a delineation of the first forceps, which, however, can be applied only to dead children, for the compression of the head.‡ RUEFF likewise

* *Observ. Medic. lib. v. c. 2. p. 319.*† *De partiente et partu*, 12mo. Amsteld, 1657.‡ *De conceptu & generatione hominis*, f. 30. 4to. Tigur. 1554.

likewise treats, with considerable accuracy, on the causes to which the retention of the secundines* is to be ascribed. In the works of MERCURIALIS† and PARE,‡ we meet with similar principles and precepts. The latter of these writers is particularly apprehensive of the dangerous consequences arising from the retention of the placenta.§

§. 20. JACOB GUILLEMEAU excels all the writers hitherto mentioned, both in fundamental erudition and rational principles, tending to facilitate the delivery of parturient women. Although he still proposes the old fashioned instruments for dilating the vagina, and is not sufficiently acquainted with the turnings of the child, as he in many cases prefers the delivery by the feet to natural birth; yet his animadversions on the surgeons, for neglecting the study of midwifery,|| are truly laudable; and his method of effecting the *accouchement forcé*, in flooding cases, has been renewed and confirmed by the works of later writers on that subject.¶ He also seriously dissuades the practitioner from attempting to promote the discharge of the after-birth, by violent means.**

HIERONIMUS MERCURIALIS, of Rome, likewise deserves to be included among the better class of chirurgical writers, though he is still attached to superstitious notions and established prejudices. He was a pupil of ARANZI, but had embraced the religious order of predicants, and at the same time practised surgery at Milan: yet, as this profession was considered as incompatible with the dignity of a religious order, he abandoned the monastery, and travelling through many cities of Italy, he exercised his favourite art without molestation from the monks. His longest residence was at Peschiera and Civita Vecchia: and after having visited France and Spain, he at length returned to the fraternity of his order, at an advanced age. His book, which he published under the name of SCIPIO MERCURIO, has been translated into most languages, and chiefly contains a collection of the principles and observations

* *De conceptu & generatione hominis*, lib. iii. c. 4. f. 25. a.

† *De morb. mulier.* lib. ii. c. 2. p. 49; in BAUHIN. *Gynaec.* vol. ii.

‡ *Oeuvres d'Ambr. Paré*, liv. xxiv. ch. 33. p. 608.

§ *Ibid.* ch. 18. p. 600.

|| Guillemeau, *de la grossesse et de l'accouchem. des femmes*, p. 258.—*Oeuvres*, fol. Paris, 1598.

¶ *Rigby von Mutter-Blutflüssen*. 8vo. Leipzig, 1736.

** Guillemeau, p. 280.

observations of his predecessors. He differs, however, from them in many essential points: thus, he censures RUEFF, for preferring the delivery by the feet to that in the natural way.* The head usually presents itself in such a manner, that the face is behind, but frequently the contrary takes place, and even then, it is not a preternatural case.† He endeavours to prove, by a very curious and whimsical calculation, that children born in the eighth month, cannot live;‡ a superstitious notion entertained by the antients.—The situation in which he places the mother, in preternatural births, is truly shocking; for he causes a number of pillows to be placed under her back, and piled up so high, that the head entirely declines, and the legs likewise are placed in a recumbent posture.

§ 21. As MERCURIALIS forcibly recommends the *Cæsarean section*, and has been an eye witness to a successful case in that operation, the historian is naturally led to investigate its antiquity. Prof. SPRENGEL observes, that he has endeavoured to shew, in his former disquisitions relative to this subject,|| that Nature has probably pointed out to mankind the necessity of this operation; as there are several cases on record, where, in a *partus extra-uterinus*, an external ulcer appeared on the abdomen, and thus the dead body of the child was discharged. In the sequel of these pages, we shall have occasion to mention some interesting cases of this nature, from the writers of the sixteenth century.

It may farther be easily conceived, that this operation was undertaken in the earliest times, from a natural love and sympathy for a living being, especially if the pregnant mother had recently died: and thus, the first traces of this practice are, perhaps, to be found in fabulous history. The Greeks relate, that Jupiter, when on a visit to Semele, one of the daughters of Cadmus, having brought down his thunder-bolts from Olympus,

* *Mercurii la commare & raccogliatrice*, lib. ii. c. 5. p. 120.—4to. Verona, 1662.

† *Ibid.* p. 26.

‡ *Ibid.* lib. i. c. 8. p. 39. "The fœtus," says he, "is formed either in 35 or 45 days. Its formation, therefore, is always imperfect, when accomplished in forty days. The double number of days requisite to form the fœtus, points out the time of motion; and this, if multiplied with 3, gives the time of birth. Thus is $40 \div 2 = 80$, and $80 \div 3 = 240 =$ eight months. *Ergo*.

§ The professor here refers the reader to his elaborate *Treatise on the Cæsarean section*, inserted in PVL's *Repertory of Medical and Political Jurisprudence*, (in German,) part of vol. ii. numb. i. p. 116. and seq.

Olympus, he handled them with so little circumspection, that a flash of lightning struck the house of Semele, and burnt it together with her person. In great haste, on the spur of this emergency, Jupiter commanded Hermes to rescue the imperfect foetus, then seven months old, by cutting it from the burning body of Semele. Jove concealed the child in his hip for nearly three months, and afterward produced Dionysos or Bacchus*. The Roman mythology informs us, with respect to Æsculapius, that his father, Apollo, had cut him out of the womb of his mother, Coronis, when she was placed on the funeral pile;† and that Æneas combated one of his adversaries, named Lychas, who had been born in a similar manner, and, on that account, was sacred to Apollo.‡

The Cæsarean section must have been successfully performed at a very early period of time; as Numa Pompilius enacted the *lex regia*, § that no pregnant woman should be buried before the foetus had been extracted by dissection. Conformably to this law, PLINY || relates, that Claudius, the first of the Cæsars, and a certain Cæso, of the family of Fabius, had thus been given to the world; and that from this remarkable circumstance they had received their names. We are farther told, that MANILLUS, who conquered Carthage in the third Punic war, and SCIPIO AFRICANUS, came into the world in a similar manner.¶ The same royal law has been repeatedly enforced by the Church of Rome; a fact for which the authority here quoted, will be deemed sufficient evidence.**

§ 22. We find by the first instance on historical record, that the Cæsarean operation had been performed on a living subject, in the beginning of the sixteenth century. It is, however, to be regretted,

* Lucian. *Dialog. Neptun. et Mercur.* p. 202. Opp. vol. i. ed. Græv. 8vo. Amstel. 1687.

† Ovid. *Metamorph.* lib. ii. fab. ix. v. 680.

‡ Virgil. *Æneid.* lib. x. v. 315. "Inde Lycham ferit, exsectum jam matre peremta
"Et tibi Phœbe sacrum."

§ Digest. lib. xi. tit. 8. *De mortuo inferendo*, l. 2. "Mulier quæ prægnans mortua,
"ne humator antequam partus ei excidatur, quei secus faxit spei animantis cum gra-
"vida occisæ reus estod."

|| Plin. *Hist. Natur.* lib. vii. c. 9.

¶ Harduin. *not. et emendat. ad Plin.* p. 432.

** Martene et Durand. *Collect. amplifs.* vol. vii. p. 1282.

gretted, that most of the chirurgical operations have been first attempted by ignorant men: such was NÜBER,* of Turgau, by profession a saw-gelder, who had the resolution to undertake that dangerous section on the body of his wife, with the happiest success. It is farther asserted, that the illustrious ANDREW DORIA was born by the aid of the Cæsarean section.†

Towards the middle of that century, a remarkable case happened at Vienna, which obviously proved that, in extra-uterine conception, or if the fetus by a rupture of the womb enters the abdomen, Nature herself appears to point out the Cæsarean operation. The following is a short history of the case: The wife of Wolcer, an innkeeper, after having been delivered of several children, became pregnant in 1545. When the time of childbirth approached, and the pains became violent, she made great exertions. On a sudden, a report was heard, as if something had burst within her body, and the milk flowed to the breast. The pains from that time ceased, but the child did not appear, and the abdomen increased in size. She became cachetic, and had a fetid discharge from the vagina: at length, in 1548, an abscess took place in the abdomen, from which a similar ichor, and, in 1549, even a bone was evacuated. As the patient grew progressively worse, surgeons and physicians were consulted. MATTH. CORNAX, Prof. at Vienna,‡ followed the parental hints of Nature, enlarged the orifice of the abscess, and successfully extracted the child, in a semi-putrid state! The mother, after this period, so completely recovered that within the next two years she again became pregnant. When the time of her delivery approached, the child, upon examination, was found to be in full vigour, but the natural passages were remarkably narrow; while the cicatrix of the old wound was moist and apparently opening of itself. Cornax proposed to open it by incision; but the woman's mother opposed this rational step. The judicious practitioner was consequently obliged to leave the unfortunate patient without a prospect of relief, and she expired in a very short time. After her demise, the old wound was opened, and the child extracted, which appeared to have but recently died.§

* *Bauhin in Append. ad Rousseti hysterotomot.* p. 37.

† *Venusta discorsio interno alla generazione e nascimento degli uomini*, p. 47. Svo. Venez. 1562.

‡ *Eloy*, vol. i. p. 711.

§ *Dodon. exempl. medic. observ.* p. 306 et seq.—*Marsell. Donat. lib. iv. c. 22. f. 239.*
—*Diom. Cornar. histor. admir.* 6. p. 13.

Similar cases were, in that age, observed by ÆGID. HERTOGE, of Brussels,* and ACHILLES FIRMINIUS GASSARUS, a very learned Physician at Augsbourg.† FIORAVANTI, an Italian charlatan, also relates a case in which the Cæsarean section was performed with tolerable success, so that the patient was only troubled afterwards with a *prolapsus uteri et vesicæ*.‡ The celebrated PARE was likewise acquainted with several successful cases of this kind, yet he does not recommend the operation forcibly; as the life of the mother is always in danger.§ The earliest scientific treatise on this subject, illustrated by figures, we find in CHARLES ETIENNE;|| and FELIX PLATER quotes a remarkable case in which a dead fœtus was extracted by section from the body of a living mother.¶ Several other instances of a similar nature were also collected by MORITZ CORDÆUS.**

§ 23. The Cæsarean operation excited the greatest attention among medical men, when FRANC. ROUSSET, surgeon to the Duke of Savoy, wrote a masterly performance in its vindication. He first appeals to experience, respecting the success of the operation observed partly by others, and partly by himself. The history of the first case he relates, is by far the most curious and memorable ever recorded. A woman, near Milly, was SIX TIMES successfully delivered by the Cæsarean section, but died with her seventh child; as the surgeon who had formerly performed that operation, was no more.†† ROUSSET next endeavours to prove from analogy, that wounds of the abdominal muscles, and the peritonæum, are not more dangerous than injuries of the uterus itself:‡‡ he farther maintains, that in cases of mal-conformation of the pelvis, too large a size of the child, or extra-uterine conception, there remain no other means of accomplishing delivery than the Cæsarean operation.||||

The assertion of SUE, the younger, in his superficial History of Midwifery, that ROUSSET has borrowed his remarks from PLATER, is groundless;

* *Dodon. exempl. medic. observ. p. 321.*

† *Ibid. p. 328.*—Vid. his Biography in *Adami*, p. 233.

‡ *Tesoro della vita umana*, p. 170. 8vo. Venez. 1570.

§ *Liv. xxiv. ch. 33, p. 608.*

|| *De dissect. part. corp. human. Lib. iii. cap. 1, p. 261. fol. Paris, 1546.*

¶ *Observat. med. lib. i. p. 212.*

** *Commentar. in Hippocrat. libr. de morb. mul. lib. ii. p. 250.*

†† *Hyperotomotokia*, S. I. c. 5, p. 504.—In *Bauhin's Gynæc.* vol. ii.

‡‡ *Ibid. S. II. p. 511.*

|||| *Ibid. S. I. c. 3, p. 502.*—S. II. p. 535.

less; as this writer published his observations two years after the work of ROUSSET. In 1582, BAUHIN published a Latin translation of the last mentioned work, corroborated the opinion of ROUSSET, and was so warm an advocate for the Cæsarean operation, that after this period it was performed by various surgeons in France. But, as they did not always proceed upon an accurate diagnosis, they consequently did not meet with uniform success. A work* written by GUILLEMEAU,* in which five fatal cases of the Cæsarean section are recorded, induced ROUSSET to publish a defence of that operation:† here he treats the subject with such acuteness and ingenuity, as cannot fail to insure the approbation of the reader. Soon after this, JAC. MARCHAND compelled him, by an undeserved libel,‡ to answer the objections of his adversaries a second time, and with much severity.§ We are assured by Mercurialis,|| that this operation was then very common in France, though his veracity is questionable, from the extravagance of his expressions. It was also introduced into Italy by JUL. CÆS. ARANZI, who was a successful operator:¶ — CORN. GEMMA,** and HOR. AUGENIUS,†† relate similar instances of operations which had a fortunate issue in that country.

A Concise History of the Principal Discoveries in Anatomy.

[Continued from our last Number, pp. 368 — 373.]

§ 21. **H**AVING given a brief account of that important discovery, the circulation of the blood, we shall now proceed to examine the leading opinions and discoveries, which relate to particular branches of the arterial and venous systems. — With respect to the course of the *aorta*, this artery, when proceeding from the heart, was, in the times of VESALIUS divided into the ascending and descending; though the former is a non-

* De la grossesse et de l'accouchement des femmes, p. 190.

† *Rousseti assertio historica et dialog. apologeticus pro cæsareo partu*, 8vo. Paris 1590.

‡ *Marchand in Rousseti apologiam declamatio*, 8vo. Paris, 1598.

§ *Rousseti brevis apologia pro partu cæsareo in dicacis quorundam chirurgi theatralem investivam*, 8vo. Paris, 1598.

|| *Mercurii la commare o raccoglitrice*, Lib. II. c. 28, p. 169. — "The Cæsarean section," says he, "is as common in France, as venesection for the head-ach is in Italy."

¶ *Craten. Epist. Lib. V. p. 297.*

** *Cyclognom. Lib. II. c. 6. p. 74.*

†† *Epistol. Lib. V. 2. p. 379.*

non-entity,* because this artery branches into the carotids, and into the subclavian arteries in the arch itself. This error was, without ostentation, first corrected by EUSTACHIUS;† and, afterwards, by FABRICIUS.‡ The skilful anatomists, BERENGAR and VESALIUS, were the first who controverted the erroneous opinion, that the carotid artery, at its entrance into the brain near the *glandula pituitaria cerebri*, forms a *reticular texture*. Mean time Vesalius himself had, consistently with truth, admitted a connection and anastomoses between the carotids and the vertebral arteries; from which circumstance he explained the continuation of life, even after the carotids had been divided.|| And these anastomoses, (of which the immortal Fallopius gave a masterly description, and added to them the anastomosis with the basilic artery) he considered as the true *rete mirabile* that deserves the admiration of the observer, in a degree at least equal to those windings of the carotids in animals.¶ Columbus endeavoured to defend Galen against Vesalius, by applying the assertion of the former, respecting the carotid, to the vertebral artery; which, when entering the great foramen of the occiput, obviously forms four considerable turnings, besides many anastomoses with the carotid and basilic arteries, as well as with the *arteria communicans*.** KOYTER indulged his speculations for defending Galen still farther, when he referred the explanations given by that ancient writer, respecting the *rete* of the carotids, to the ramification of the third (fifth) pair of nerves in the basis of the brain.††

§ 22. VESALIUS had observed the alternate swelling and sinking of the brain, during inspiration and expiration. As he was unacquainted with the larger circulation of the blood, he could not explain this phenomenon in any other manner, than by conjecturing that the blood vessels in the brain were of an arterial nature; while he believed, that the arteries emptied themselves into the latter.‡‡ Although FALLOPIUS||| and COLUMBUS ¶¶ discovered that the blood vessels of the brain belong to the venous system, yet the changes of the brain during respiration, which KOYTER *** likewise observed, could not be satisfactorily explained previous to the discovery of the circulation.

EUSTACHIUS

* *Vesal. Exam. Observ. Fallop. lib. iii. c. 12. p. 341.*

† *Eustach. Tab. xv. fig. 2, 4, 6.*

‡ *De format. foet. p. 52. Tab. vi. fig. 15.*

|| *Vesal. Lib. iii. c. 12. p. 342.*

¶ *Fallop. Observ. p. 400.*

** *Columb. Lib. vii. p. 337.*

†† *Cotter. Observ. p. 123.*

‡‡ *Vesal. Lib. iii. c. 14. p. 350.*

||| *Fallop. Instit. p. 458.*

¶¶ *Columb. Lib. viii. p. 349.*

*** *Cotter. Observ. p. 122.*

EUSTACHIUS very accurately pointed out the origin of the *arteria ethmoida anterior*, from the *arteria ophthalmica orbitalis*.*

The spinal artery, which derives its origin from the *arteria cerebialis profunda*, or from the vertebral artery, and which proceeds downwards along the *tunica arachnoidea* of the *medulla spinalis*, had been noticed by BERENGAR, as a white shining line;† and STEPHANUS was at a loss, whether to consider it as a nerve running parallel with the spinal marrow.‡ This mistake is very pardonable, for even modern anatomists have considered this vessel as a ligament.§ The posterior arteries of the ear were perhaps first represented by GUIDI.|| Both VESALIUS and EUSTACHIUS made inquiries relative to the progress of the subclavian and axillary arteries and veins: the former reproached GALEN for his superficial investigation of the branches belonging to the deep axillary vein, and demonstrated the branches proceeding from this vessel, and communicating with the common cutaneous veins.¶ EUSTACHIUS, on the contrary, endeavoured to prove, that GALEN had doubtless known these veins; and the former described the anastomoses of the basilic, cephalic, and median veins.** But it must be admitted, that EUSTACHIUS was not sufficiently acquainted with the division of the humeral artery; as he asserts, that the arteries of the radius and ulna, arise from the former only below the elbow; while it is certain, that these arteries frequently begin above the ancon; and his drawing of the axillary vein is not altogether a faithful copy from nature.††

The origin of the left gastro-epiploic artery, VESALIUS pretty accurately deduced from the splenic artery.‡‡ His error, however, that the external jugular veins were larger and more capacious than the internal, was corrected with great accuracy by FALLOPIUS, who proved the contrary.§§ VESALIUS, and several other cotemporary anatomists, had erroneously derived the arteries of the penis from the vesical artery: FALLOPIUS corrected this mistake also, by proving that those

* Ols. exara. p. 172.

† Stephan. de dissect. p. 342.

‡ Vid. lib. iii. tab. 27. fig. 1. (99) p. 124.

** Enghsch. Opusc. p. 292.

†† Lib. v. c. 4. p. 423. fig. 2. (2)

‡‡ Vesal. lib. iii. c. 7. p. 327.—Fallop. Observ. p. 397.

† Comment. in Mundin. f. 496. b.

§ Haller Element. Physiol. vol. iv. p. 136.

¶ Vesal. lib. iii. c. 8. p. 329.

†† Tab. xxvi. No. 1. (2.)

those vessels really originated from the *arteria pudenda* & *arteria pelvis*: the former, or the *pudenda communis*, he called *hypocystica*.*

VESALIUS, the immortal father of modern anatomists, appeared at length with a discovery which excited great attention, in consequence of the incorrect notions then prevalent, with respect to the circulation of the blood in the veins. He demonstrated, that the *vena sine pari*, which arises from the intercostal muscles and the pleura, terminates only in the right *vena cava*; or, as it was then expressed, that it originates from the latter, and proceeds to the pleura. If, therefore, this membrane were affected, the blood may be emptied by the nearest canal, if in such a case the axillary vein of the right arm were opened; because this vessel arises from the *vena cava*, near the *vena sine pari*.†

He refuted GALEN, who had maintained, that the last mentioned vein uniformly empties itself into the *vena cava*, in the cavity of the pericardium. SYLVIVS, the adversary of VESALIUS, could not produce any valid objections against ocular demonstration; but, in order to save the credit of his favourite GALEN, he made use of his usual, though absurd evasion, that the human body, in ancient times, had been larger, consequently the cavity of the thorax had also been longer.‡ EUSTACHIUS, however, inquired more minutely into this subject, and made interesting remarks on the anastomoses of the *vena sine pari* with the renal veins, the truth of which was farther confirmed by FALLOPIUS:§ he also commented with ability on the occasionally double formation of this vein;|| on the *hemiazyga*,¶ and on the division of the *vena sine pari* near the eighth and ninth ribs.** He admitted that the *azygos* does not uniformly empty itself into the *vena cava*, within the pericardium; but maintained, that this efflux takes place in the vicinity of the pericardium.†† Lastly, ARANTIUS likewise observed the anastomoses of the *vena sine pari* with the intercostal and axillary veins.‡‡

§ 23.

* *Fallopij*. Observ. p. 419.

† *Vesal.* Epistol de usu radic. Chyn. p. 641.—*Id.* de corp. human fabric. lib. iii. c. 7. p. 323. (edit. *Albin.* fol. L. B. 1725.) But VESALIUS had even, in the year 1539, written a particular epistle or treatise on this subject.

‡ *Sylv.* *vesal.* calumn. depuls. p. 98.—Comp. *Putei* apolog. f. 137. 6.

§ *Eustach.* de *vena sine pari*, p. 103, 109, 110.—*Fallopij*. Instit. p. 448.—Comp. *Morgagni* adversar. anat. vol. v p. 86.

|| *Eustach.* *Ibid.* p. 279.

¶ *Ibid.* p. 275.

** *Ibid.* p. 290.

†† *Ibid.* p. 244.

‡‡ *Arant.* Observ. c. 32. p. 90.

§ 23. The first trace of the knowledge of the *lymphatic vessels*, we find in HEROPHILUS;* but this discovery was very little cultivated in a century, which produced so many eminent anatomists; and the doctrine of the lacteals and lymphatics made less progress, comparatively, than any other branch of anatomy. MASSA observed ducts proceeding upwards from the mouth of the renal vessels, so early as the year 1532; and these ducts, probably, were lymphatics.† FALLOPIUS still more plainly discovered canals, which proceeded from the surface of the liver to the pancreas, and were filled with a yellowish humour.‡ At length, EUSTACHIUS discovered, in horses, the principal trunk of the lacteals, or the *ductus thoracicus*.§ “From the inner part of the sub-clavian vein,” says he, “there extends in these animals, downwards, a large vessel, the orifice of which is closed by a semilunar valve. This duct is white, and contains a watery humour. Near its origin, it branches into two divisions, which afterwards unite; and, without forming any other branches, the principal trunk proceeds on the left side of the dorsal vertebræ, through the diaphragm, to the middle of the lumbar region, where it dilates considerably, surrounds the great artery, and terminates in a manner hitherto unknown to me.” Our ancestors had advanced thus far in the knowledge of the lymphatics, at the conclusion of the sixteenth century.

[Want of room, occasioned by the influx of many valuable original communications, has obliged us to limit the extent of foreign articles accordingly. Hence the reader will, doubtless, excuse us for continuing this comprehensive and important article, through the whole of the next volume. The following branches of the History of Anatomy remain, therefore, to be detailed in future Numbers of this work, viz. Splanchnology—Organs of Generation—Structure of the Brain,—and Distribution of the Nerves.]

* *Galen de usu part. lib. iv. p. 417.*

† *Fallops. Observ. p. 395.*

‡ *Sylv. Ilag. f. 32. b.*

§ *Eustach. de vena sine pari. p. 280.*

HINTS AND IMPROVEMENTS
IN THE PRACTICE OF
MEDICINE AND SURGERY.

On the Origin and Prevention of some of the Diseases of Human Teeth and Bones. By Dr. MITCHILL, of New-York.

[Concluded from p. 380—382 of our L.A. Number.]

THE factor of the breath has an analogy, in such cases, with the offensiveness of matter discharged from deceased bone, which, in general, is discoloured, and not thick; owing to a separation of the phosphoric acid of the bone from its calcareous base, now combined with septic acid, and running away with the other fluids, in the form of a thin and sanious discharge; or occasionally bringing on, when absorbed, that form of quotidian intermitting fever, called the *hectic*, as in other cases of abscess and ulcer.

RUSSEL considers necrosis, whether happening in the tibia, femur, lower jaw, clavicle, humerus, fibula, radius, or ulna, as the same kind of disease, (p. 86.) If then, his classification of morbid affections be correct, and my application of principle to explain the phenomena be accurate, it will be proved, that the same septic poison which destroys the teeth, corrupts the jaw; and from the same cause which disorganizes the jaw, proceeds the decay of the rest of the bones; and this same agent, which works the destruction of the rest of the bones, is the irritating matter that kindles up hectic fever.

I would not wish to be understood as affirming that *all* caries of the teeth, jaws, and bones, arise from this sole cause. Far from it. The amount of my reasoning is simply this; that, from the most accurate survey I have been able to take of the subject, there does appear to be, in *some instances*, a decomposition of bone, by means of septic acid, absorbed from without, or formed, by union of septon with oxygen, within the constitution; and when this acid, mingled with other animal fluids, is carried into the blood-vessels, and exerts its noxious pow-

ers upon the heart, brain, and lungs, it may be the cause of febrile inquietude.

How far this principle may extend, if properly applied, I know not. I suspect that *sphilitic*, *cancerous*, and *scrophulous* ulcerations will be found to have a near alliance, as to their cause, with caries of teeth and necrosis of bone now under consideration. But time, with farther observation and experiment, is necessary to refute or verify this conjecture. Be the result as it may, I think, as the game is started, and the track is fresh and warm, it would betray less than a sportsman's spirit to be discouraged, on account of the doublings and windings of the chace, and give out before the object of pursuit is hunted down, or day-light let in upon its dark abode.

On the Dolor Faciei, observed by Fothergill.

It is generally believed that this disease has been scarcely, if it all, known to practitioners, before the late Dr. FOTHERGILL described its nature and medical treatment.

In the Tenth Number of the "*Journal der Erfindungen*," however, we meet with the following account relative to this subject: Prof. SIEBOLD, jun. of Würzburg, shewed in a Treatise, entitled, "*Doloris Faciei, morbi rarioris, atque atrocis observationibus illustrati adumbratio*," 4to. 1795; that this singular disease was observed and described by BAUSCH, the founder and first president of the *Acad. Natur. Curiosor.* who died in the year 1655. This writer was himself subject to the disease, and gave an account of it, in the *Ephemer. Nat. Cur. Dec. I. Ann. II.* where he delivers the history of the academy. A similar case occurs in the next volume of these Ephemerides, p. 455; but the most accurate and complete description of this painful affection is furnished by DEGNER, in the *Act. Natur. Cur. Vol. I.* p. 347—half a century prior to FOTHERGILL. A French surgeon of the name of ANDRE likewise observed the disease in the year 1756, and gave it the name of *tic*.

"After having mentioned all the modern writers on the subject, Prof. SIEBOLD adds, that he himself has observed the *dolor faciei* in a female, without being able to trace any cause of that complaint. The patient was successively treated with cicuta, bark, and valerian, while vesicatories and mercurial frictions were applied externally: she at length tolerably recovered."

The reviewer of this article, in the Journal above mentioned, informs us, that he has only once met with the troublesome malady, which the Germans call "*the Fothergillian face-ach.*" His patient was a lady of a sound constitution, about forty years of age, and mother of several children. She had been tormented with this pain for eighteen months, during which time she submitted to the ineffectual treatment of several physicians, as no determinate cause of it could be discovered. He was at length induced to prescribe as follows:—*R. Pulv. Folior. Belladonn. gr. v. Rad. Rhei gr. iij, Sacchar alb. ʒfs. M. D. tales dos. No. viii.* One of these powders was directed to be taken every other night; and this obstinate case, according to the German account, yielded completely to that remedy!

Miscellaneous Facts and Remarks.

Dr. FERRO, of Vienna, in consequence of an Essay published in the 5th Number of the *Journal der Erfindungen*, relative to the treatment of the *nervous fever*, by Dr. BRANDIS, observes, that he has likewise found the *luke-warm bath* to be the safest and most effectual remedy against that fatal disease, which, at Vienna, every winter, destroys many persons in the bloom and prime of life.—*Journ. der Erfind.* No. VI. p. 135.

Dr. L. FRANK, of Milan, coincides in opinion with Dr. Ferro, and has published, some time ago, in the Medical and Chirurgical Gazette of Salzburg, some excellent remarks *on the bracing virtues of the warm bath, and on Moscati's mercurial calx.* The tonic powers attributed to the tepid bath by Dr. MARCARD, in his late and classical work, are particularly obvious in that singular disease called *Pellagra*, where great and general debility is the principal symptom.—Moscati's oxyd of mercury consists merely of calomel digested in an alkaline ley, and thus deprived of its acid, while it assumes a black colour. Dr. Frank prefers this to other mercurial preparations, because it operates more gently, with equal safety, and is seldom attended with ptyalism. He also prescribes it externally, in the form of mercurial ointment for friction.—*Ibid.* No. X. p. 133.

The medicinal virtues of certain vegetable substances (though we do not wish to increase the *Materia Medica* in quantity so much as in quality) certainly appear to deserve every attention. Among this number are the leaves of the *Ilex Aquifolium*, LINN. The last treatise on this subject

subject was published at Halle, in 1789, by A. D. BANDELOW, and entitled: *De foliorum Ilicis Aquifolii analysi et virtute medica*, 8vo.—The author maintains, that the leaves of the holy-oak produce a tonic and resolvent effect, that they promote secretions and evacuations, particularly by diaphoresis. From one to two ounces of the leaves (it is not said whether dry or fresh) are boiled in a quart of beer or water, and this decoction is gradually drank through the day. According to Mr. B. this remedy, in a short time, cured obstinate rheumatic and arthritic pains. He also recommends it for the cure of intermittents; and as we are frequently baffled in those diseases with our present stock, perhaps these leaves would deserve a fair trial in this country, both on account of their cheapness, and the easy method of preparing them as a medicine.—*Ibid.* No. VI. p. 138.

Citizen BERLINGHERI has presented to the Philomatic Society of Paris, three memoirs extracted from the works of Dr. CHIARENTI.—The first contains observations on the use of the gastric juice, in diseases of the stomach. CHIARENTI successfully repeated the experiments on digestion, made by SPALLANZANI and REAUMUR, and likewise attempted some new ones: he treated several diseases of the stomach with success, by administering the gastric juice of a variety of animals in different doses. The second memoir relates to opium, and its action on the animal œconomy.—CHIARENTI was of opinion, in consequence of repeated experiments, that opium does not operate like common emetics; and that it continues inactive, till, having combined with the gastric juice in the stomach, it is digested and passed into circulation. Consistently with this conjecture, he formed a mixture of opium, of gastric juice, and pomatum, which he applied by friction, on the skin of man and animals; and in this manner he ascertained the effects of opium taken internally. Thus, opium may be administered in the most critical diseases of the stomach, and even to infants of the most tender age. CHIARENTI also applied it with success, as a local remedy, in acute diseases; such as the *gout*, the *odontalgia*, and even in diseases of the breast. The third memoir is an attempt to prove that the gastric juice is destined by Nature to promote the absorption of many substances. He mixed the gastric juice with squills, rhubarb, and bark; and the frictions with these mixtures produced effects similar to those resulting from these substances, when taken internally.

Several Italian physicians, in repeating these experiments, have observed

erved analogous effects: some of them attempted to substitute saliva, instead of the gastric juice, which, according to their assertion, answered the same purpose: hence they conclude, that all the animalised liquids might afford the necessary modification to medical substances, to introduce them by the cutaneous vessels.

CITIZENS ALIBERT and DUMERIL have repeated these experiments, at the request of the Philomatic Society. They administered several purgatives by friction, and the bark thus applied has succeeded in the treatment of obstinate quartan fevers; the squill cured a child, the whole of whose body was œdematous. They are now continuing these experiments, and hope to be able to announce, that the gastric juice has no influence whatever on the effects of remedies, and that any other vehicle may be substituted.—*Rapport General des Travaux de la Société Philomatique de Paris*, Vol. I. p. 132.

Citizen MARSILLAC read a memoir to the Society, respecting a man, who, with a view to inoculate his two children, spread some scabs of the variolous matter between slices of bread and butter; the children ate it, and gave a piece to a dog; they had a very mild small-pox, and the dog, at the end of the 4th day, had a complete variolous eruption: on the 9th the pustules were at their height, soon became dry, and fell off in the usual manner. An English Author has asserted, that he observed the variolous epidemic among a flock of sheep; but perhaps this author has confounded the scab with the small-pox, as there is a great analogy between these two diseases.—*Ibid.* p. 136.

Citizen CHAUSSIER addressed some observations to the Society, on a specific against the hydrophobia, sold at Paris and Lyons, under the name of the *Ormskirk Remedy*. He observes, that this pretended specific has long been employed in England, under the inspection of several of the most celebrated physicians, and always without success. He adds, that its composition is known: It is prepared of an absorbent earth, the recipe of which is contained in the “*Researches of Citizen Andry, on Hydrophobia*.” Chaussier is of opinion, that the only means of preventing the consequences of this disease is to check the absorption of the virus, by cauterising the bitten part, and producing an abundant suppuration.—*Ibid.* p. 135.

CITIZEN BELLOT transmitted some observations on hydrophobia;
in

in which he considers soap as the best preservative and curative substance for the bite of mad animals. He cited several instances, in which the application of a lixivium of soap and water proved successful.—*Ibid.* p. 130.

The same member also sent several memoirs on various diseases of patients admitted into the hospitals of Laon and Senlis, in the second year of the Republic, particularly a case of *ascites*, the subject of which had suddenly swelled to a dreadful size; but the swelling disappeared in fifteen days, after an application of two large blisters to the thighs, and the administration of an emetic, composed of two grains of tartarized antimony, and half an ounce of the sulphat of soda in a little milk; with this treatment, he conjoined the tonic pills of Bacher.—*Ibid.*

Citizens LEVEILLE and LARREY made reports on the use of the muriat of barytes. The former employed it in the treatment of an *osseo-sarcoma* in the lower part of the leg, on which this salt, taken internally by the patient, produced no good effect. The latter asserted, that this substance was inefficacious in the treatment of scrofulous tumours. A patient, after having taken it during forty days, experienced distressing symptoms in the stomach, accompanied with an obstinate diarrhoea, and a fever which continued while that remedy was administered, leaving him in a state of great debility.—*Ibid.*

Citizen ALIBERT read a memoir on odours, and their effects as medicines. He mentioned several facts to which he was a witness, proving the multiplied relations between odours and the different morbid states of the human body, particularly their influence on hysterical and consumptive diseases. He is of opinion that this object is worthy of the researches of physicians and philosophers, and solicited the Society to take notice of the corroborating accounts of others, and determine accordingly.—*Ibid.* p. 131.

Citizen BENON read a memoir on the advantages of treating venereal diseases by corrosive sublimate applied externally, and by injections. He was induced to judge of the good effects of this remedy, in consequence of the successful treatment of a delicate woman, who had a confirmed venereal disease.—*Ibid.* p. 136.

MEDICAL AND PHYSICAL
INTELLIGENCE,

(Original and Selected.)

Observations on Soda, the Alkaline Basis of Animal Gall and of Sea-Salt, &c. by Dr. MITCHILL of New-York.

[Concluded from our last Number, p. p. 383—385.]

SODA alone then can preserve the flesh of an animal from corruption ; and if mere preservation was all that was intended, this alkali would, by itself, answer the purpose ; and so would pot-ash. But there is some quality in the muriatic acid which makes the compound, which it forms with soda, a far preferable substance to prevent the corruption of meat intended to be eaten.

In order to understand what effect the muriate of soda has, it will be proper to consider what change the piece of meat in the larder was undergoing, which could be arrested by the sea-salt. The flesh of animals (I mean, particularly, the muscular or lean parts) may be considered as verging towards a putrefactive state from the time the fibres lose their irritability, and become rigid. And one of the signs of incipient putrefaction, under circumstances favourable to that process, is sometimes a *sourness* or *production of acidity* in the substance ; (4 Fourcroy, chap. xvi.) and this acidity is inherent in the meat, and quite another thing from fixed air. What I mean is the *septic acid*, which sometimes poisons dissectors, and which, when volatilized into gas, and diffused through the atmosphere, causes violent endemic distempers. When produced, it is formed early in the putrefactive process, and before the whole flesh has undergone total disorganization. But, fortunately for mankind, it is not *always* engendered during the putrefaction, even of those substances which contain its basis, septon. This radical frequently escapes in the form of azotic air, without combining with oxygen at all, and, in such cases, the exact matter of pestilential fluids is not formed.

In cases where the septic acid is formed in salted meat, the muriat of soda is decomposed ; and while the alkali attracts the destructive septic acid to itself, it parts with the muriatic. The flesh, in proportion as it becomes impregnated with this new and preserving ingredient, progresses, afterwards, slowly towards decomposition, because it is enveloped with a liquid acting feebly upon it, and upon which it can exert, in its turn, but a feeble action. Hence, when beef, or any other lean meat, is plentifully charged and surrounded with salt, there is enough of soda to neutralize the acid of putrefaction, should any be formed, and there is also a corresponding proportion of the spirit of salt disengaged ; from which latter proceeds, in a certain degree, the agreeable smell and pleasant taste of well-salted provisions.

To

To preserve the flesh of animals, there must, therefore, be not only salt enough in the barrel, but this salt must be applied to every part of the meat, by cutting it into pieces of a moderate size, and by rubbing in the salt with a strong hand, as well as by the application of brine or pickle. When too little salt is applied, and provisions are become tainted or corrupt, there is not soda enough to arrest the septic acid, nor a sufficiency of muriatic acid extricated to impregnate and preserve the remainder of the meat. From this septic matter, disengaged with a portion of hydrogen, phosphorus, &c. proceeds the disgusting flavour and sickly nauseating fœtor of badly-cured provisions. Thus I account for the production of a large proportion of the pestilential air evolved from stinking *beef, hides, and fish*, which almost depopulated New-York this year. An alkali could have staid the whole mischief.

Soda may be thus considered not merely as an antiseptic, but as a substance remarkably friendly, and even necessary to the constitution of the more perfect animals, and especially of man. We are now able to judge a little more clearly and consistently concerning the operation of the various preparations of that alkali upon the alimentary canal. The neutral salts, with this basis, are among the most mild and agreeable efficacious articles of the shops. The *tartaric of soda* (Rochelle salt) is an elegant remedy, and one which I have employed with much satisfaction to keep the intestines free from noxious matter, in our pestilential and other fevers. The *phosphat of soda* (soda phosphorata) is, perhaps, a yet more elegant medicine, readily soluble in water, easy to be taken, and not difficult to be decomposed in the bowels. The *carbonat of soda*, dissolved in water, and taken into the stomach at the rate of from four to eight grains in two or three hours, is a most gentle and efficacious remedy in dysenteries, and in cholera infantum. If tenesmus is violent, clysters of soda often afford almost instant relief. Laudanum, if necessary, may be joined with it in both cases. Indeed, in the three enumerated forms, soda is capable of attracting the septic acid, which, no doubt, is a frequent exciting cause of dysentery. The *sulphat of soda* is the WONDERFUL SALT OF GLAUBER, and familiar to physicians, and indeed to housekeepers: I shall, therefore, only remark upon it, for the information of chemists, that, contrary to the arrangement in the common tables of elective attractions, M. CHAPTAL has shewn, (*Memoire sur la Decomposition a Froid, &c. 1 Memoires de Chimie, p. 47.*) that the nitrous (septous) acid can decompose the vitriolic salts, that is, those saline compositions which contain the sulphuric acid: and he enumerates by name Glauber's salt, or sulphat of soda, as one of the vitriolic salts capable of being thus decomposed. The *muriat of soda* has likewise, of late, been highly extolled as a valuable anti-dysenteric remedy.

But what signifies it to enlarge on the preferableness of this alkali, in medical prescriptions, to either of the other alkalies? The very name it now bears is SODA, a word synonymous with *pyrosis* and *cardialgia*, and signifying that disorder in the stomach called, by the speakers of the English language, "heart-burn." When I first became acquainted with it, the official name was *sal sodæ*, o. *salt for the heart-burn*. Latterly, the name "soda" has been transferred from the disease to the substance used in curing it; in which it has been so firmly established since its introduction into chemical nomenclature, that many of the younger class

of modern inquirers have to find out, by searching their dictionaries, that soda had ever any other meaning than the one it at present bears. It will appear from these remarks, that soda was, a considerable time since, thought a good thing for the alimentary canal, and the reason of this was what I have attempted to assign and illustrate.

This theory of bile and sea-salt will be called visionary by some, perhaps the greater part of those who peruse it, especially if they glance at it superficially. To this treatment reformers must submit. Their whole employment is like pulling against the tide, and sometimes beating against the wind too. They should remember the words of the poet, and be meek:

"Truths would you teach, or save a sinking land,
"All fear, none aid you, and few understand."

A further Statement of the Case of Elizabeth Thompson, upon whom the Cesarean Operation was performed in the Manchester Lying-in Hospital; in addition to that published by Mr. WOOD, in the Memoirs of the Medical Society of London, Vol. 5th, by CHARLES WHITE, and RICHARD HALL, Men-midwives Extraordinary; GEORGE TOMLINSON, and JOHN THORP, Men-midwives in Ordinary to that Charity.

MANCHESTER, November 8, 1799.

AS a difference of opinion has taken place before the public, between two medical gentlemen, on the subject of a case of Cesarean operation lately performed in the Lying-in Hospital at Manchester, and the facts of it being variously represented by them, the men-midwives of that institution feel it their duty to the profession, to state their opinion and the circumstances of this interesting case.

On Monday the 24th of June last, about one o'clock P. M. Mr. White received a letter from Mr. Ogden, a surgeon at Ashton-under-Line, which we have subjoined, together with Mr. White's answer.*

About two o'clock, Elizabeth Thompson was brought to the Lying-in Hospital

* MR. OGDEN'S LETTER.

CHARLES WHITE, Esq. King-street, Manchester.

DEAR SIR,

Though I am not acquainted with all the rules of the Lying-in-Hospital, yet, I trust, I am acting in conformity with their spirit, in sending the poor woman, who is the object of this address, to the Charity in question. I have no doubt, you will receive her with cheerfulness; and tho' I am afraid there will be much, both of difficulty and danger in the case, yet it will be some consolation to me, to reflect, that every possible care will be taken of the poor patient; living as she does, at a distance from all obstetrical assistance, it would be impossible, under all the circumstances of the case, to render her all the necessary aid and accommodation at home: humanity therefore requires me to act as I am doing. Permit me further

Hospital,* and as soon as she arrived, Mrs. Turner, the matron and midwife, sent for Mr. Wood, the man-midwife in ordinary, for the week, who saw her about three o'clock. He finding the case a very difficult and dangerous one, desired a consultation, when the men-midwives extraordinary, and in ordinary, were immediately sent for; four of whom attended. Mr. Nansan was at Buxton, and Mr. White was gone a few miles out of town; but a messenger was dispatched after him, to request his attendance. He immediately came to town, and arrived at the hospital about half past eight o'clock; where he found Messrs. Hall, Tomlinson, Wood, and Thorp. After having examined the poor woman, their opinions were taken separately, and given to Mr. Wood, without any previous communication with each other; when they were unanimous, that the pelvis was so much distorted, that none of them could perceive either the child, the *os tinctæ*, or any part of the uterus; that nothing but the Cæsarean operation could give any chance either to the mother or the child, and that no time ought to be lost in performing it.—The pulse, previous to the operation, beat 120 in a minute.

The plan laid for the operation, was, to pay no regard to the epigastric artery, as it could be of no consequence in a large wound, to

further to request, that, should the Cæsarean Section be deemed expedient, in the present case, you will inform me of it, in order that I may be present at the operation.

With becoming respect, I remain,

Dear Sir, your most obedient servant,

Ashton, 24th June, 1799.

JAMES OGDEN.

MR. WHITE'S ANSWER.

MR. OGDEN, Surgeon, Ashton-under-Line.

DEAR SIR,

Immediately upon the receipt of your letter, yesterday, I sent it down to the Lying-in-Hospital, and along with it, a recommendation for the poor woman; but she was not then arrived, and I was obliged to go out of town; but Mr. Wood, under whose care she fell, finding the case a very deplorable one, called a consultation, and a special messenger was dispatched after me, to request my attendance. When I arrived, betwixt eight and nine o'clock, I found Messrs. Hall, Tomlinson, Wood and Thorp; we were all unanimous, that no relief could be obtained for the poor woman, except by the Cæsarean Operation, which she consented to without the least hesitation, and it was performed by Mr. Wood without any accident or disappointment. The child is alive and hearty, and was christened this morning by the name of Julius Cæsar. The poor woman has had a very good night, and is as well in every respect as can possibly be expected. She bore the operation without a complaint, and says it was a much easier labour than her former one.

It gave us all great concern that we had not time to send for you, but the lateness of the hour when the consultation took place, and the great consequence it might be of to the poor woman to have delayed the operation, we hope will be a sufficient apology for not requesting your attendance, but we shall be extremely happy if you will have the goodness to attend our consultation at the Hospital to-morrow morning at a quarter before seven o'clock.

Manchester,

June 25th, 1799.

I am, yours most sincerely,

C. WHITE.

Mr. Ogden attended the consultation at the time appointed

* We find, upon inquiry, that she was brought in a cart, placed on a feather bed which was slung with cords, in imitation of a hammock; but the mode which we recommend for conveying women in labour, from a distance, is a sling, carried by two men; it is easily constructed in any country place, with two poles and a couple of jacks.

One upon this construction is kept in the Hospital, for that purpose, and may be had when applied for.

men accustomed to perform operations, and who knew the use of the needle and tenaculum. The place of election for the incision appeared to them to be, where the child could be most easily perceived, where they were not likely to meet either with intestines or placenta, or any intervening substance of consequence. The operation was well performed, and with great steadiness, by Mr. Wood, in the presence of Messrs. White, Hall, Tomlinson, and Thorp, of Mr. Chippindall, the apothecary to the charity, Mr. Barlow, Mr. Wood's assistant, and Mrs. Turner, the midwife. The epigastric artery was not wounded; the incision in the uterus was not more than sufficient to extract the child; there was no hæmorrhage to threaten life, or to impede her recovery; and what blood was shed into the cavity, was taken up by a sponge. The child lay upon its right side, with its head, in the neck of the uterus, resting on the fourth vertebra of the loins, and on the right ilium and pubis, completely above the superior aperture. Whoever will be at the trouble of applying a foetal skull to this distorted pelvis, will be convinced, that it could not take any other position, the head could not descend so low as to be jammed in between the bones of the pelvis; it could not even descend so low as the fifth vertebra of the loins; so that the *cervix uteri* appears to have been forced, at every pain, against the *os innominatum* on the right side, and the fourth vertebra of the loins. *The natural shape of the head was not at all changed* from its round form to an oblong or sugar-loaf form; and it is impossible that it should have so changed, because the superior aperture was too narrow, and too distorted, to admit of its descending through any part of that aperture; and as the bones of the pelvis could not give way, the child's head, by every labour pain, would drive the *cervix uteri* against the solid bone, and produce an alarming degree of contusion—thence the danger.

We attended the patient three times a day, as long as she lived; and we are satisfied, that the after-treatment was right and proper in every respect. But thus far we may say, that, though she did not lose so much blood as to endanger her life or impede her recovery, we were of opinion, that, taking more, either generally or locally, would, on account of her previous indisposition, have occasioned too great a debility. We thought seventeen hours after the operation early enough to inject a clyster; as the intestines had been sufficiently emptied, a little while before the operation, by a violent diarrhœa. *We never, at any one time, thought her free from danger.* She died an easy death, and was extremely thankful for what had been done for her; and we hesitate not to give it as our opinion, that, performing the operation was the greatest act of humanity that could be done to the poor creature, who was labouring under as excruciating pains as we ever knew to fall to the lot of a human being.

The body was opened by Mr. Wood, in the presence of the Medical Committee of the hospital. The gentlemen who attended were, Dr. Cowling, Messrs. White, Hall, Thorp, Foxley, Brigham, Ollier, and Clough; Mr. Chippindall and Mr. Barlow were also present.

There were about ten ounces of bloody serum, with a little coagulated blood, (not more than an ounce) in the cavity of the abdomen.

The intestines were much distended with wind; but very few fæces were contained in them, and none of them were hardened.

There was no appearance of peritoneal, or intestinal inflammation; no

no inflammatory exudation; no flakes of coagulable lymph; nor any extravasated fluid, of the nature of milk, resembling unclarified whey, containing flakes of curd-like matter, adhering to the intestines; nor had the intestines formed any adhesions; nor were there any unfavourable appearances about the wound in the uterus, or in that of the integuments.

The uterus was taken out of the body, and the *os tincæ* was found dilated to about two inches and a half in diameter; but still nothing could be discovered that could possibly account for her death, until it was cut open, when the inside being carefully washed with a sponge and warm water, a gangrene appeared quite round the inside of the neck of the uterus, rising higher in nearly a circular form, in the fore part, where the child's head was believed to have pressed it against the elevated part of the *ossa pubis*. This mortification* in the neck of the womb, which was totally unconnected with the incision in that organ, we consider as sufficient in itself to account for the death of the woman.

As soon as the uterus and pelvis were removed from the body, Mr. Wood, sent round to the physicians and surgeons of the Manchester Infirmary, and to several other medical gentlemen, who had not attended the dissection, to request their attendance at the hospital, where the uterus and pelvis were left for their inspection. In the course of that day, the following gentlemen attended, and saw the uterus and pelvis.

Dr. Holme, physician to the Infirmary; Dr. Hull; Mr. Bill, Mr. Killer, Mr. Ward, and Mr. Hamilton, surgeons to the Infirmary; Mr. Taunton, surgeon to the Cornwall Fencibles, at the Barracks; and Mr. William Henry.

* Mortification frequently takes place without any inflammation preceding; and, that mortification of the uterus will happen, without much previous warning, will appear from a case which Mr. White published in the appendix to his Treatise on the Management of Pregnant and Lying-in Women, ed. 5th. page 448, of a lady who died on the 8th day after delivery, of a mortification of the uterus, but had made no complaint till within six hours of her death.

The uterus is an organ which is not absolutely necessary to life, since many animals have been known to live after it has been taken out. *Ætius* and *Paulus Ægineta* say, that they have known even women recover, when the uterus had been extirpated on account of an inversion; and the same is mentioned by *Paré*. A very interesting case of this kind is related by *Prof. Wriberg* of Göttingen (*Com. Soc. Reg. Sc. Gott. tom. 8.*) *Mary Dorothy Ude* was delivered by a midwife of her first child on the 5th of June, 1780, who used so much violence in attempting to bring away the placenta, that she inverted the uterus, and immediately afterwards cut it away with a knife, exactly in the part where it is connected with the vagina. The poor woman was greatly endangered by the hemorrhage, but recovered completely. In September 1786, the aperture, which before that time would admit a finger, was become almost closed.

Dr. Holme, Physician to the Manchester Infirmary, saw and examined this woman in the year 1790, at Göttingen.

N. B. Casts of the pelvis, taken in plaister of Paris, by Mr. Sardini, may be had of him in London, and of Mr. Chippindall, the Apothecary at the Lying in Hospital in Manchester, where practitioners may have an opportunity of convincing themselves of the utter impossibility of delivering, where there are such distorted pelvises, by any other means than the Cæsarean Operation. We have the satisfaction to say, that the child is very strong and hearty.

From the prior account given by Mr. Wood, in the Memoirs of the London Medical Society, Vol. V. p. 475, relative to the dimensions of the pelvis, in the fullest here alluded to, it appears, that the largest circle which could be formed in any part of the superior aperture, did not exceed one inch in diameter.—Ed:

Dr.

Dr. Percival called on Mr. White, in order to have gone with him to the hospital; but not finding him at home, and other circumstances occurring, prevented the Doctor from seeing the uterus at that time, but he afterwards saw it at Mr. Wood's.

Mr. Simmons, in a note to Mr. Wood, thanks him for his polite attention, but declines in the present instance accepting his invitation.

The Cæsarean operation has been successfully performed in Ireland; in the West Indies; frequently upon the Continent of Europe; and within these six years at Blackrod in this county. The only matter of dispute, in this last instance, is, whether the uterus was cut open with a knife, or was burst. The operator says it was cut open, the assistant says it was burst. We are not aware that a lacerated wound has any advantage over an incised one, except in preventing hæmorrhage, which we do not find to be a material objection to the operation.

We believe that the Cæsarean operation, and cutting the symphysis of the pubis, have frequently been unnecessarily performed upon the Continent, in cases where an English Accoucheur would never have thought of having recourse to either; and, on the contrary, we believe that many lives have been lost in this kingdom, for want of the Cæsarean operation being performed, and that some have been lost from its having been too long delayed. But, we should be much concerned to find it ever become other than a rare operation.

It should never be resorted to, when milder means will answer; nor should the life of the child be put in competition with that of the mother; nor should it in any case be performed, without a consultation of the most eminent practitioners in the neighbourhood.

Many women's lives have been saved by the crotchet in distorted pelvis; but there are some cases, where it cannot possibly be used; six having occurred in this town, within our knowledge, in which the delivery could not be accomplished by means of this instrument, and the Cæsarean operation, not being had recourse to, all the mothers and children perished.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN the fifth volume of the London Medical Memoirs, just published, there is a paper from Mr. Wood, of Manchester, surgeon, relating a case of the Cæsarean operation, which he has lately performed in the Lying-in hospital of that town, and in which it was my fortune to be somewhat concerned. As Mr. W. in this paper, has drawn some inferences which may, and which I suspect were *meant* to, convey a censure as well upon Mr. Simmons as myself, I trust you will give a place, in the next number of your Journal, to the following statement and remarks.

On Monday the 24th of June last, between two and three o'clock in the morning, I was called up to go and visit the wife of John Thompson, of Hazlehurst, in this parish, as being then in labour. The distance from my house is about two miles. I went immediately; and on my arrival there, was informed that the poor woman, who was quite

quite a stranger to me, had then been in labour about two hours. After examining her per vaginam in the first instance, and interrogating her afterwards respecting her former labours, her general state of health, &c. I informed her husband that she could not be delivered either very soon or very easily, and that I wished to have a consultation on her case with a friend of mine from Manchester. I desired him to get a horse as soon as possible, and follow me home, where I would have a letter ready for him accordingly. He did so. This letter I addressed to Mr. Simmons, who came, and saw the woman along with me before nine o'clock, A. M. After a cautious examination, Mr. S. was of opinion that the case was one of Dr. Osborne's crotchets. The woman's pains at this time recurred very regularly; her skin was cool, her pulse calm, and, abstracted from the obvious deformity of the pelvis, there was nothing to excite either alarm or suspicion. As it was impossible for Mr. S. to undertake the case at such a distance from home, and as I had many reasons for declining it myself, the Lying-in hospital occurred to me as the most proper for the occasion. I immediately communicated this suggestion to both the husband and his wife, who acceded to it without hesitation. I then ordered a cart to be fitted up with ropes, in such a manner that a bed could be suspended by them without resting on the cart; and on a bed slung in this way the woman was conveyed to the Lying-in hospital, and, as the husband informed me soon afterwards, with more ease, convenience and expedition than could have been expected. She arrived at the hospital about one o'clock, P. M. Along with the patient I sent a letter to Mr. White, as senior accoucheur to the charity, requesting admission for her: and fearing Mr. W. might not be at home on its arrival, I sent my letter open, with a verbal instruction to the bearer, that, in such case, he should take it to Mr. Hall (the next in seniority to Mr. W.); who would be able to see its contents and act accordingly. I requested farther, in my letter to Mr. W. that should the Cæsarean section be deemed expedient, he would let me know, in order that I might be present at the operation. I heard no more of the case until ten o'clock in the evening of the next day, the 25th, when I received a letter from Mr. W. dated the same day, stating, that the Cæsarean operation had been performed the evening before, at nine o'clock; that the child was alive and healthy, and that the mother was in a very promising situation. And as an apology, I suppose, for not advising me of the operation prior to its being done, Mr. W. expressed a wish to see me at the hospital the following morning at seven o'clock, being the hour agreed upon for consultation. Believing the poor woman would certainly die, in consequence of the operation, and being extremely anxious to see her while living, I set out for Manchester the same night, and arrived at the hospital soon after midnight. I met the gentlemen of the hospital the next morning, the 26th, at seven o'clock, as desired, when their opinion still was, that if a passage could be procured per anum, the patient would do well. It was mentioned too, incidentally, that at some period subsequent to the operation, (I do not remember precisely when, and therefore I dare not say) her pulse had been below 100. I mention these circumstances merely to shew, that, in the opinion of the accoucheurs of the hospital, no inflammation of any sort existed either before the operation or on the day following it, and that even on the morning of the second day after the operation, they were scarcely,

if at all, alarmed for the patient's safety. My own opinion, it is true, was widely different from theirs, and I declared it to them accordingly. I remained in town a few hours longer, purposely to watch the progression of symptoms; and when I saw her for the third and last time, about one o'clock, I did not consider her recovery as a possible occurrence. She died about 36 hours afterwards.

In giving an account of the dissection, Mr. Wood attributes the woman's death to a gangrene about the cervix uteri; and this gangrene, he chooses to say, was occasioned by the pressure of the child's head, as impelled merely by the pains of labour, assisted, perhaps, by some *rugged* concussions of her bed, while travelling in the cart. Now when it is considered, how often cases of this sort have been *undecided for many days successively*, without the patient's suffering any material injury simply from the delay, during all which time it has been usual, also, to employ some other violent means to accomplish the delivery, I put it to the candour and good sense of the medical world at large, whether it is at all probable, that the woman's death, in question, was occasioned by the causes as accounted for by Mr. Wood. But I will *suppose* the case to be as Mr. W. wishes us to believe, that a mortal inflammation of the uterus was excited, no matter how, *before* the operation, pray what can excuse his performing so serious an operation under such a circumstance? Had a disease so truly formidable *no* symptoms, either general or characteristic? Is it even possible for such a disease to be excited in so few hours, in the way suggested, and to elude discovery? If so, I should be glad to know from Mr. W. or from his associates, *when* we can be certain that such a disease does *not* exist? and whether, on such a supposition, we can ever be justified in performing the operation at all, *except as a preventative before the coming on of labour*? Mr. Wood chooses to say farther, that if the operation had been performed sooner, and at the patient's home, she would probably have recovered. Supposing this to be true, it is very much to be lamented that the poor woman should have been *eight* hours in the hospital, before the operation was performed. The public, I am confident, will easily see that no time was lost in getting her there. I do not wish to say any thing respecting the *treatment* of the case. Mr. Wood's account of it is before the public: it is all the account which the public is likely to receive, and, for aught I know, it may be correct as far as it goes. But I must be permitted to ask, if it was of so much importance to empty the bowels very soon after the operation in question, as undoubtedly it was, why was nothing of this sort done *before* the operation? The operation was performed on the Monday evening at nine o'clock, and the patient had had no stool from the afternoon of the day preceding. I do not mean to infer much from this omission, though I do think it ought to have been most studiously guarded against. It is very unphilosophical, to say the least of it, to seek for, or to rest upon, minor circumstances as occasioning the woman's death, when we have *one* so abundantly sufficient to account for it, and which has occasioned the death of every other woman in this country in the same situation;—*I mean, the operation itself.*

Having thus shewn that the poor woman's death not only was not, but could not be, occasioned in the way, and as explained by Mr. Wood, the only inference which I can draw from the case is, and the public at large, I am persuaded, will draw the same—*that the Cæsarean operation ought*

ought never to be performed at all, in any case whatsoever, during the life of the mother.

Astton-under-Line,

Nov. 5, 1799.

I am, GENTLEMEN,

Your most obedient servant,

JAMES OGDEN.

P. S. Since writing the above, I have seen the statement, as drawn up by Mr. Simmons, and which he intends, I believe, for publication in your Journal. It is only necessary to observe, respecting Mr. S's account, that the facts stated in it are strictly true.

Miscellaneous Extracts.

Citizens DUMERIL, CHAUSSIER, and DUMAS have communicated to the *Philomatic Society*, various plans of an Anatomical Nomenclature. The first plan is founded on the termination of nouns; and the author adopts, as the radical, that name of the bone which is surrounded by the parts to be described; and the termination alone indicates, whether the name belongs to a muscle, an artery, a vein, or a nerve, &c. The methodical classification and nomenclature presented by the second Citizen possess great advantages over those hitherto used; as more uniformity in the designations has long been a desideratum. The Nomenclature proposed by Cit. Dumas, differs but little from that of Citizen Chaussier; it is composed of names which the author has endeavoured to define, but they are often formed of words rather difficult to be remembered. The eight chapters in which he comprises the introduction to this work, are written with clearness and precision, and abound in philosophic reflections.—*Rapport Général des Travaux de la Société Philomatique de Paris*, 1798. vol. i. p. 143.

Citizen L'EVEILLE has laid before the Society, several reports relative to the inquiries made by him in conjunction with Citizens LARREY and DUMERIL, to authenticate the observation made by Dr. SOEMMERING, professor of anatomy at Mentz, on the retina of the human eye. He has discovered a yellow speck situated in the axis of the eye, near the insertion of the optic nerve, and which has an aperture in its centre, not before observed by anatomists. L'Eveillé has found this speck, with its aperture, in several human subjects; he imagines it to be destined for the modification of light, when its impression on the retina is too vivid; a circumstance of which Soemmering takes no notice.—*Ibid.* p. 144.

The same member has communicated to the Society, an observation which he made respecting an infant born with an imperforate anus; and whose rectum communicated with the bladder. The surgeons had in vain attempted to make an artificial anus in this subject.—*Ibid.* p. 145.

He also gave an account of a fœtus, six months old, having only one eye, situated immediately above the nose: This eye contained two transparent corneæ, separated from each other by two opaque corneæ; it had

had two optic nerves; but he could not discover the smallest trace of the nasal cavities.—*Ibid.*

The same anatomist relates the dissection of a subject twelve years of age, in which he found the pericardium adhering to the heart, and entirely in a state of suppuration. This subject had died in consequence of frequent convulsions over the whole body; and had suffered much pain on being touched.—*Ibid.*

Citizen HALLE has given a description of an extraordinary foetus, in which the brain had formed a hernia across the cranium. On the right side, the ribs were separated from the sternum; the whole of the right arm was formed of two bones end to end, terminating in a single finger. The clavicle was found articulated with the os humeri and the sternum. This foetus had no skin on its belly. All the inferior viscera were displaced from its abdomen; nor had it a gall bladder: it was furnished with only one leg.—*Ibid.* p. 147.

Citizen CUVIER informed the Society, that he had received a description of a subject which had neither head nor heart. Its body was divided into three lobes, two of which represented the thighs and legs, and the third the trunk. Citizen Brongniart had formerly given the Society an account of a child born without head, arms, heart, lungs, or stomach, and wanting several other parts essentially necessary to a foetus.—*Ibid.*

Citizen L'EVEILLE opened a female subject that had been treated for an internal complaint, at the Hotel Dieu, at Paris. She was eight months gone with child, and the ovary of the right side formed a considerable tumour, containing a mole as big as a hen's egg, and a well-formed foetus, apparently three months and a half old; its various limbs, as well as its placenta and umbilical cord, could be easily distinguished.—*Ibid.* p. 146.

Citizen BRONGNIART read a memoir to the Society, on his dissections of several apes; *Simia cynocephalos, capusina, æthiops, memon, & sabæa*. He compared the myology of these species together, and with that of man. Hence he concludes, that apes have a greater number of muscles than the human species; that these muscles are more fleshy, and often more elongated; but that, in general, the tendons and aponeuroses are much less; that the muscles of the pelvis, and of the posterior extremities, are so situated as to oppose themselves, in apes, to the long-continued vertical position; but that their form and arrangement enable these animals to jump and climb with extraordinary agility. In short, he is of opinion, that apes resemble quadrupeds in their muscular organization much more than they resemble man.—*Ibid.* p. 150.

Citizen CUVIER read a memoir on the hearing faculty of whales, and presented to the Society the auricular bone of one of these animals. This bone does not form an essential part of the cranium, but is suspended by muscles and ligaments. He distinctly saw, in the foetus of the whale, the circular canals, the existence of which in cetaceous animals, has been denied

denied by Camper. To this memoir is added a table of the characters of the internal ear, in all the classes which are provided with that organ; whence it appears, that the essential part of the ear is a kind of transparent gluten, into which the auditory nerve seems to resolve itself.—*Ibid.* p. 148.

Citizen LATREILLE transmitted to the Society, some observations on the organs of generation of the *Falvus complanatus*, L. The male of this insect has sixty feet, and the female sixty-two. Instead of the two which are wanting in the male, are two yellow, transparent, and projecting feet, which belong to the organs of generation, and are not externally perceptible. In the female, the genitals dilate only in coition, being imperceptible at any other time: these insects copulate front to front.—*Ibid.*

Citizen L'EVEILLE made a report on a new attempt to perform the Cæsarean section. The woman who underwent this operation died immediately. On dissecting the body, Citizen L'Eveille found the aperture of the uterus exactly parallel to that of the abdominal integuments, contrary to the opinion of several authors, who assert, that on the birth of the child, the uterus returns to its natural situation.—*Ibid.* p. 152.

The same member mentioned an observation he had made on an *aneurism* of the aorta. On the left side of the breast, a tumour appeared about five inches long, and three and a half broad: it had very frequent pulsations, resembling a settled palpitation; the pulse on the side of the aneurism was almost imperceptible; the patient soon expired, being suffocated by the quantity of blood discharged from the tumour, which instantly disappeared; the intercostal muscles had degenerated into a cartilaginous substance; the third true rib was entirely destroyed by a caries which had attacked the second and fourth ribs. The author observes, that it is very difficult to determine the cause of this disease, which of late has become very frequent.—*Ibid.* p. 152.

Citizen LACROIX read an observation on an extra-uterine conception. The patient, only by the suppression of her menses, discovered her pregnancy, five months after which she perceived some internal motions. At the end of seven months, the fœtus ceased to move. A considerable discharge, attended with painful symptoms, induced Citizens Baudeloque and Lacroix to suspect an extra-uterine conception. This woman died soon afterwards, and, on opening the body, they found the large ligament and the Fallopian tube blended in a sac, formed by the epiploon; there was likewise a fœtus lying towards the left side of the belly, in the usual posture; the uterus was in its natural state; the dilatation of the Fallopian tube, in which the fœtus had grown, was one inch from it; the skin and the cellular membrane of the child had changed their nature, and when pressed by the thumb, appeared like fat; they were similar to the fat of dead bodies found in the cemetery of the Innocents, except that, in the analysis, they did not afford any ammonia.—*Ibid.* p. 156.

Citizen L'EVEILLE communicated some observations on a tetanus which succeeded a wound of the finger. To avoid a fall from a ladder,
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the patient caught a hook, by which he remained suspended: this made a deep wound in the anterior part of the middle finger, which cicatrized in a few days; but soon afterwards the patient felt such acute pains in the face, and diaphragm, that he was obliged to apply to the hospital. The tetanus now appeared; his jaws were completely locked; the recti muscles were rigid and projecting; his back was concave, and his breast convex. On touching his belly, the muscles of the neck became contracted. Citizen PELLETON cured this man in twenty-one days, by the frequent use of baths, and the administration of laudanum.—*Ibid.* p. 153.

Citizen DUMERIL communicated the result of an experiment he had recently made. It had been formerly observed, that when the bones became accidentally dislocated, new articular cavities were formed in the place where they touched. An attempt was made to repeat this experiment upon animals. After having dislocated the thigh of a young dog, and amputated the extremity of the femur, below the trochanter, the animal was allowed to walk about. A short time after, on opening the body, it was observed that a new articular cavity was formed; from this fact it was inferred, that in a case where a caries would render it necessary to extract a part of human bone, the carious part might be removed, as the re-union of the two healthy parts would form a new articular cavity, and the patient would experience no other inconvenience than the shortening of the limb.—*Ibid.* p. 154.

Citizen LARREY read an observation on a considerable tumour, the nature of which was mistaken before and after the death of the patient. The origin of this disease was ascribed to flying rheumatic pains which settled in the knee. The patient having had a fall on that part, felt a crack in the joint, and was unable to rise; inflammation succeeded, and, notwithstanding the aid of medicine, he daily grew worse. Citizen PELLETAN, who supposed this disorder to be a *spina ventosa*, proposed the amputation of the thigh: some other practitioners considering the tumour as lymphatic, determined to open it with a trochar. Two incisions were made, from which issued a fetid gas and sanious ichor, but the patient died the second day after the operation. On opening the body, the femur, near the condyles, was found in blackish fragments, and corroded by the caries; the marrow was black and disorganised; the periosteum partly detached, and the surrounding soft parts reduced to a spongy substance, which had been penetrated by several splinters of the thigh bone.—*Ibid.* p. 155.

Domestic Intelligence.

A few botanical friends have formed a plan of a popular work, by which they propose to rescue the *Science of Botany* from the libraries of the learned, and to substitute for all the *technical* terms, hitherto used in elementary works, apposite English names and phrases, such as are easily understood by every reader of a cultivated mind. Their principal aim

is, to investigate, ascertain, and apply the properties of all native plants to some useful end, or purpose. While other botanists have successfully laboured to furnish us with accurate descriptions and faithful delineations of plants, the aim of this Society will be directed to the more practical, or economical part of Botany: by pointing out, in familiar language, whether, and in what degree, our indigenous plants may afford fuel, meal, oil, salt, soap, colouring matter, glue and paste, rosin, wax, paper, chocolate, and tobacco, or whether they may be more profitably employed in the different processes of fermentation, for making wine or vinegar, brewing beer, distilling spirits; or for manufacturing linen, cotton, and silk cloths; for the various arts of dying, varnishing, tanning, &c. It is superfluous to mention that this comprehensive work, so much wanted in an age of the strictest economy, will appear under the auspices of the most illustrious characters in this country; and, as a farther account of it is intended to be given in future Numbers of our Journal, we shall only add, that it is to be entitled, THE BRITISH ENCYCLOPEDIA BOTANICA.

Mr. PARKINSON, whose Medical Admonitions were mentioned in our Journal for May and July, has, we understand, in the press, besides the *Mensoranda Chemica*, which we announced some time since, a popular medical work, intended for that class of society who can seldom purchase medical aid. The health and happiness of these he means to promote by pointing out, in a familiar lecture, rules for the prosecution of labour and of recreation; the injuries to health arising from irregularities; the duties due from parents to children; the means of removing the first symptoms of disease, &c.

Dr. DARWIN's new work, entitled, "Phytologia. or the Philosophy of Agriculture and Gardening, with the Theory of Draining Morasses, and an improved Construction of the Drill Plough, is so far advanced at the press, that it may be expected before Christmas; it will form a large quarto volume, illustrated with plates.

Dr. BEDDOES, who is indefatigable in the cause of useful science, announces the early publication of a popular medical work, in which he intends to unfold that portion of the order of Nature, which regulates the movements of the animal machine, and along with the principles, to state explicitly those practices relative to the preservation and recovery of health, upon which alone unprofessional readers can safely venture. Dr. Beddoes benevolently "wishes to render health a main object of education; to deter the ignorant from tampering with the sick; and to curtail the dominion of empirical imposture." The first number of this work will appear after Christmas, and the whole will be of considerable extent, and be enriched with engravings.

CRITICAL RETROSPECT
OF
MEDICAL AND PHYSICAL LITERATURE.
[FOREIGN AND DOMESTIC.]

M E D I C I N E.

Annales Instituti Medico-Clinici Wirceburgensis : Redegit & Observationibus Illustravit J. N. THOMANN, M. D. &c. vol. i. cum. v. figuris acri incisis. lxxviii & 229. pp. Wirceburgi apud A. M. Köl. 1799.

In this volume, which is written with perspicuity, the author communicates to us, 1st. A concise history of the origin and progress of that excellent institution, the magnificent hospital at Würzburg, founded by prince-bishop Julius, towards the conclusion of the sixteenth century, at first for the reception of two hundred patients. 2d. Meteorological observations. 3d. Lists of diseases from the 1st of April to the 31st of December, 1798; and, 4th. Medical observations on the most interesting cases.

As the last part will be chiefly interesting to the medical reader, we shall extract a few passages from the most remarkable cases, in the author's own words.

After giving a general description of the Intermittents which prevailed at Würzburg, in July last, and their treatment, the author makes the following remarks:—"Morbi in universum non multi fuere, maxima parte chronici hoc mense vulgares, quorum nonnullos, licet minus graves, notabiliores tamen, hoc tempore grassantes exponam.

"Diarrhoea habitualis iure potentiis debilitantibus praegressis, praecipue purgationi nimiae adscribitur, quae saepissime a Medicis et Medicamentis sine omni discrimine ordinatur. Non curant monita nostro tempore variis in libris novellisque literariis adlata, quibus abusus ac tumultuaria purgantium exhibitio damnatur; et, spernentes ulteriora rei medicae studia, sua methodo, cui iam ab ovo aduerti sunt, contenti, minime terrentur ancipiti experimento, etsi quotidie morbum purgantibus adaugeri, universi corporis organismi incitationem minui, morbosque, levi medicamine profligandos, in pertinacissimos ac gravissimos rueri videant.

"Sunt tamen prudentes Medici complures, qui doctrinam illam in variis Germaniae scholis deprædicatam, omnes fere morbos e sordibus primarum viarum derivandos esse, ad vanas et inanes phantasias referant, omni veritate et recta observatione destitutas. Si quae mala emeticum aut purgans exigunt, erunt forsitan ab indigestione orta, neque febres, quas dicunt gastricas, ita adpellandas censeo, quarum quippe causa ac fons inter praecordia non latet, sed alibi potius quaerendus est, ut magis edocet verum organismi animalis studium, iudicium et experientia. Minime enim morbi illi antigastrici, neque solventibus, neque emeticis, neque purgantibus organismi animalis incitationem ac incitabilitatem devastantibus tolluntur.

Alius,

" Alius, de quo fermonem faciam, morbus erat renum peculiaris adfectio a fabulosis et calculosis concrementis fuscitata. Multifariis iam lithontripticis sic dictis, uva urfi ab HAENIO maxime, aqua calcis cum sapone a STEPHENS, lixivio saponario a IURIN et CHITTICKS, alcali vegetabili ac minerali, aere fixo a PERCIVAL, SAUNDERS, HULME magnopere laudatis aliisque remediis institui experimenta: nullum vero votis magis respondit, quam aqua mephitica alcalina a COLBORN et FALCONER commendata. Absit tamen, ut huic aliive remedio vires lithontripticas tribuam, i. e. virtutem, calculos in rene folvendi, aut deterendi, abradendi. Videtur potius grato suo stimulo urinae secretionem adaugere, qua postmodum fabulosa concrementa ac minores calculi una cum muco glutinoso excernuntur. Aut forsitan haec aqua alia et singulari gaudet, calculos depellendi, virtute sub sensus non cadente, qualem multis adhuc medicaminibus tribuimus, quorum effectum, minime tamen effectus causam novimus. Quamquam ad expellendos calculos maiores ac perfecte formatos illud remedium nihil omnino conferre experiri simus, plures tamen nobis innotescunt homines, calculosis et fabulosis concrementis ac multis exinde ortis molestiis adfecti, aquae huius usu restituti. Incommoda enim mox cessabant, atque per urinas multa alba glutinosa materies sedimento fabuloso per longum temporis intervallum cum quodam urethrae ardore eiciebatur. Alba illa materies pauculo tempore sibi relicta friabiles formavit rubros vel albidos lapillos, urinamque blandam sensim amplexa est indolem, neque in urinis amplius cernebatur arena: quibus perstantibus ardor urethrae utique evanuit, et aegri postmodum eam recuperarunt sanitatem, ut et post multos annos calculosis adfectionibus immunes vixerint, et hodieum vivant. Neque in morbo hoc calculoso solum, sed et in aliis renum, vesicae ac uretherum morbis, medicamen illud iuvare, immo mucum atque gluten vasa renum excretoria obdurans illo reserari, atque e corpore eliminari, vesicae ulcera, uretherum ac pelvis renum exulcerationes depurari ac sanari observatum est. Quod si interea contingit, ut aut nimia mali intensitate, aut partium destructione, aut labe quacunque alia corpus tenente ac depascente homo non liberaretur, immo periret, nihil id derogaret remedii praestantiae, quippe quum omnium vel optimorum remedium ea sit natura, ut intra certos tantum mali limites agant, et extra eosdem agere nequeant. Sufficit etiam in eiusmodi casibus eam remedii deprehendere efficaciam, ut, quum spes nulla adfulgere videatur, saltem inexpectatum adferat levamen.

Aquae huius alcalinae iuxta formam FALCONERI paratae aegrotans mane per tres vices uncias sedecim ad viginti quatuor sumsit. Quantitatem vero semper aegrotantis viribus ac ventriculi praesertim robore metiebar. Ad quae diiudicanda nisi vitae ante aetate ratio corporisque constitutio ducerent, effectus aquae propinatae iuvabat, quam caute semper porrexi, ne digestio unquam laederetur, ventriculus gravaretur, anxietas, pectoris oppressio, cardialgia, colica, ventris inflatio, diarrhoea aliaque orirentur molestiae, quas non raro ad immodico aquae usu, nunquam a modico provenisse vidi. Eas tamen, si adparebant, usus roborantium amarorum dissipavit; nonnunquam statim in initio ad praecavenda haecce incommoda cum aqua mephitica alcalina simul et roborantia exhibui." pp. 67—70.

Among the most instructive cases are those which the judicious author has illustrated with plates: viz. the history of an ossification in the heart,

heart, found after dissection; and a case of dropsy of the ovarium. Of these, we purpose to give a detailed account to our readers, in a future Number.—At present, we shall only take notice of a case of *emphysema*, which is sufficiently important, both on account of the complicated variety of symptoms, and the rational practice adopted by the physicians of that hospital. The particulars of this case are as follow:

“Pistor quidam, annos 44 natus et sanis ortus parentibus, corpore sit robusto laetique a teneris sanitate usus est, nisi quod 12mo aetatis suae anno per tres menses vexaretur scabie. Molestum hoc exanthema adhibito unguento ex sulphure, Mercurio et oleo olivarum ita evanuit, ut ulla inde remansisset molestias sibi haud meminerit. Ex coniugio sat infelici tres genuit proles cum uxore, quae ex cancroso ulcere faciem occupante periit. Qua defuncta opibus exhaustus cum infantibus ipsi relictis vitam vivebat miseram, plerumque vagabundam. Quum 24to aetatis suae anno in cella vinaria laborans atque multum refrigeratus magnam vini frigidi copiam avidis hausisset faucibus, subito molestiam in pectore sensit: horrorem sat vehementem insequerantur calor, languor, tussicula sicca, sensatio quaedam tendens ac premens in pectore, respiratio difficilis et anxiosa. Incrementibus noctu hisce symptomatibus quaerit auxilium a Medico, et mox restitutus fuit. Ex eo tempore, expositus omnibus miserae ac vagae vivendi rationi adnexis calamitatibus, variis addebatur morbis, in quibus tamen adfectiones pectoris maximi semper fuerant momenti. Quum praeterea pro vitae suae genere pondera levando pulmones adhuc magis exagitaret, accidit, ut in maiorem morbi traheretur opportunitatem. Quare omnino fere vernali et autumnali tempore a tussicula ab initio sicca, in posterum autem sputis soluta, adfectum se fuisse refert. Quibus pectoris adfectionibus se nonnunquam associavit cardialgia, quam usu spiritus vini vinive calidi profligare conabatur, quod remedium mox amavit tantopere, ut quotidie fere dimidiam vel etiam libram unam spiritus vini biberet. Infelicem hanc consuetudinem firmavit magis Medicus quidam, qui aegro elixirium quoddam spirituosum mane sumendum praescripsit. Levatus inde paululum aeger libenter huic consuetudini indulgit, minusque sollicitus de sua valetudine aestatis calore excalefactus aquam hausit frigidam, nec non data quavis occasione potibus spirituosius usus, hoc tempore tandem autumnali corripitur omnibus pectoris adfecti symptomatibus supra iam enarratis. Appetitus praeterea fuit depravatus, atque sudoribus nocturnis fere disfluens aeger valde debilitabatur. Tussis cum sputis e viridi flavis ac tenacibus mane e lecto surgentem valde anxium reddebat. Mense Octobri ad suam suorumque sustentandam vitam ruri circumvagus valdeque excalefactus, larga subito pluvia per totum corpus madefactus, in proximum festinans hospitium calori fornacis proxime adsedit. Siccatus paululum aeris frigori se denuo exposuit, iter in urbem profecturus, Sed haud longe progressus subito collum quasi rigidum et tumens, totum caput graviter occupatum, instantem quasi apoplexiam, pectoris oppressionem et constrictionem, et in latere thoracis dextro sensum titillationis percepit. Viribus valde prostratis in urbem venit. Noctu subitaneo totumque corpus percutiente frigore excitatur e somno, quumque ob respirationis difficultatem e lecto sese ad tollere cogeretur, capitis, trunci et extremiarum superiorum tumorem sensit ac gravedinem ingentem; palpebrae oculi dextri tumentes bulbum obtinent. Insequitur calor corporis urens, sitis inexplebilis, orthopnoea. Altera die, 5ta Octobris, miser

miser hic ad noscomium confugit. Capitis et trunci corporis monstruosa conspicitur tumescencia, facies rubedine fulgens erysipelatosa, palpebrae utriusque oculi tumens ita, ut bulbi obtegerentur. Mammæ earum mulieris instar lactescentis turgent. In capite, trunco et extremitatibus superioribus strepitus sub adtactu crepitans, ut in emphysemate, sat bene distinguitur; frigus præterea et calor alternans, respiratio difficilis, anxiosa, stertorosa, situm nonnisi erectum in lecto concedens aegro; tussis frequens et sicca; sputa interdum spumosa; pulsus parvus, debilis et frequens; cutis arida, sitis multa, alvus obstructa.

“ Morbi causam præter tempestatis mutationes ac refrigeria aeger nullam accusat: quare prognosin discrimine plenam pronuntiantes præscripsimus:

R. Aq. flor. sambuc. Unc. septem.
Vini antimon. Huxh. Dr. duas.
Spir. Minder.
Syrup. diacod. aa Unc. unam et dimid.

MDS. Omni hora cochlear unum.

“ Adplicetur clystina emolliens. Diaeta tenuis cum vino. Regimen calidum et siccum.

“ Ne ullum de aeris sub cute præsentia supersit dubium, fonticulum ad brachium dextrum posuimus, quo levi pressione aer inter sanguinem eo loco adgregatum bullularum sub forma exiit.

“ A 6ta usque ad 9nam Octobris. Continuata hac medendi methodo erysipelas faciei ut et febris evanescit; subsequente largo sudore, tumor capitis et reliqui corporis collabitur; strepitus tamen tactui sensibilis atque pectoris adfectiones et tussicula cum sputis tenacibus e viridi flavis permanent: unde pulmonis dextri vomitam seu exulcerationes a neglectis prægressis pectoris morbis et vitæ genere suspicati sumus. Ordinatur:

R. Rad. polygal. seneg. Dr. duas.
coq. cum aq. font. libra una ad remanent.
Unc. septem. Col. adde
Mell. depur. Unc. unam.

MDS. Omni bihorio cochlearia duo.

“ Diaeta portio quadrans. Pro potu vinum aqua dilutum.

“ Die 9na et 10ma. Omnia eadem, nocte sudor largus. Præscribitur:

R. Opii puri Gr. unum.
Rad. Ipecacuanh. Gr. dimidium.
Sacch. albi Dr. dimidiam.
M. f. pulv. div. in duas part. aequales.
DS. Mane et vespere dosis una.

“ Die 11ma et 12ma. Symptomata et ordinatio eadem.

“ Die 13tia. Symptomata pectoris valde imminuta; sputa puriformia facillime eiciuntur; lassitudo inter largos per noctem sudores; emphysema fere totum evanidum. Præscribitur:

R. Pulv. cort. peruv. Unc. unam.
Rad. polygal. seneg. Dr. duas.
coq. c. aq. font. libra una ad remanent.
Unc. octo. Col. adde
Mell. depur. Unc. unam.

MDS. Omni bihorio cochlearia duo.

Pro potu decoctum Lich. Island. Portio dimidia cum vino.

"A die 14ta ad 18vam. Adfectiones pectoris valde imminutae; restat autem tussis cum sputis puriformibus. Hinc sublato emphysemate et faciei erysipelate aegrum declaravimus phthisicum, et post aliquod tempus viribus magis restauratis e nosocomio dimisimus."

Notice of some Observations made at the Medical Pneumatic Institution: By T. BEDDOES, M. D. 8vo. p. p. 47, price 1s. 6d. Bristol and London. Longman and Rees, 1799.

Dr. Beddoes commences this pamphlet with an explanation of the causes of delay, which have retarded the long expected reports from the Pneumatic Institution.

"At length, after some disgusts and much delay, we have it in our power to announce the first proceedings at the establishment, for applying chemistry to the elucidation of animal nature, principally by pursuing the connection between the properties of elastic fluids, and the conditions of life. By such an investigation, the public has been already too often told how much I consider it as practicable to advance *physiology*, the most interesting of the sciences, and *medicine*, the most useful of the arts. Intimately persuaded that immense improvements must, sooner or later, result from the inquiry, provided Nature be consistent with herself, and nothing doubting the truth of this, the fundamental postulate of all philosophy, I felt little discouraged by failures, which the presumption of sciolists has often busied itself in representing as decisive. For, who would suffer himself to be turned prematurely aside from an useful pursuit, by reptiles that plant themselves on the high road of improvement, and try to hiss back all who would advance?—Nor has the intelligent part of the public, I believe, been induced to regard as finished that which could not properly be said to be begun. For myself, among a multitude of reports, that prove nothing beyond the safety of the research, observing some far more favourable than could be expected from the excessive disproportion between the means hitherto employed, and the end in view, I incessantly persevered in urging the execution of the design.

"How widely this proceeding departed from that wary professional conduct, which, above all things, avoids committing itself by any measure of striking singularity, and is content with the eternal repetition of processes, from which nothing of advantage is expected, and nothing gained, I could not but be conscious. The present was, perhaps, the first example, since the origin of civil society, of an extensive scheme of pure scientific medical investigation.

"To have engaged in it, however, either without a sufficient fund, or the most able assistance, would have been to do a good cause the most lasting of injuries, supposing (what I have long sincerely believed) that extensive benefit may result from the undertaking. The qualifications of a superintendant, were, indeed, of still greater importance than the amount of the subscription. In some hands, the largest sum would have been utterly unproductive. And the acquisition of a properly qualified associate, might be considered as more than virtually doubling the fund; since it is the prerogative of superior talents, to accomplish great purposes by small means."

Dr. BEDDOES gives an account of the effects produced by breathing a certain modification of the *dephlogisticated nitrous gas* of Dr. PRIEST-

LEY, which are astonishing enough, and will, doubtless, produce no common sensation in the minds of physiologists.

The present publication, however, is only a notice of a regular quarterly account of the Institution, and its future prospects. This periodical work the author here announces, under the title of *Researches concerning Nature and Man*.

NATURAL HISTORY.

The British Flora, or a Linneæan Arrangement of British Plants; with their generic and specific characters, select synonyms, English names, places of growth, duration, times of flowering, and references to figures. By JOHN HULL, M. D. &c. in two parts, 8vo. 449 pp. (price nine shillings) Manchester, CLARKE; London, BICKERSTAFF; and Edinburgh, MUDIE.

This compendious and useful work has hitherto escaped our attention, though it was published in the beginning of the present year. The author appears to have taken uncommon pains, in rendering this publication of superior utility to others that have hitherto appeared on the native plants of this island; as he has not only availed himself of the best authorities, but likewise added many original remarks and observations made in his botanical excursions.

In order to enable the reader to judge, in some degree, of the merits claimed by this "*Flora*," we shall quote the author's own words from his preface: "The numerous corrections and additions, which the catalogue of British plants has lately received, in consequence of the prevailing taste for botanical pursuits, having rendered the *Enchiridion Botanicum* of Broughton, and all similar publications, very insufficient for the purposes of the practical botanist, the author was induced, in the beginning of last year, to prepare the volume, now offered to the public, for the press.

"Had he then been apprised, that a pocket *Flora* would so soon appear by another hand, he would have relinquished his undertaking; but, having nearly completed the work, before the Synopsis of Mr. SYMONS was announced for publication; and finding that work written in the Latin language, less comprehensive in its plan, and not continued through the three last orders of the Class Cryptogamia, he could not consider it as superseding the necessity of this volume; which, he flatters himself, will prove an useful companion in botanical excursions.

"In the *Catalogue* here given, will be found all the *species* contained in the third edition of Dr. WITHERING's very valuable work on the botany of these kingdoms, together with such additional ones, as have been since discovered and ascertained. All the varieties also are given, except those depending merely upon size or colour.

"In the *Arrangement*, the author has adhered strictly to the method established by the justly celebrated Linnaeus, in preference to the reformed system of Professor THUNBERG; although this has been adopted on the Continent by HAENKE, in his edition of the *Genera Plantarum*, and by WILDENOW in his *Floræ Berolinensis Prodrômus*; and in this kingdom, by SIBTHORPE, WITHERING, and SYMONS. That he may not unnecessarily add to the size of this volume, he will assign his reasons for this, and give some observations on the botanical language, here employed, in

the preface to a work, containing an Introduction to Botany, and the Natural Characters of the Genera of British Plants, which is now in the press; and will content himself with giving here the following short statement of the plan of the British Flora.

“ The *Genera* are numbered in the same manner, as in RICHARDSON'S edition of the *Genera Plantarum*, and the fourteenth edition of the *Systema Vegetabilium*, published by MURRAY, at Goettingen, in 1784. The *Characters* are, in general, translated from the works of LINNÆUS, and chiefly from the *Systema Vegetabilium*. Where Linnæan characters are wanting, the deficiency has been supplied from the works of HUDSON, LIGHTFOOT, WITHERING, DIXON, SMITH, the Linnæan Transactions, &c. &c. With these, are occasionally given some additional distinctive marks, either included in a parenthesis, or subjoined as an observation.

“ To each *Species* are added,

1. The English Names; except in the three last orders of the class Cryptogamia, where they have been almost universally omitted, because they are mere translations, and not properly established :

2. The general *Habitation*, or *Situation*, in which it is found, and, in some instances, where the plant is very rare, the particular place is indicated :

3. The *Duration*; which is expressed by the initials of the words annual, biennial, perennial, shrub, tree :

4. The *Seasons*, or *months of flowering*; the months being expressed by numbers, e. g. January by 1, February by 2, &c. &c.

5. A *Reference* to some figure, or figures. In general, one figure only is referred to, and, in some instances, an inferior English figure has been preferred to a superior foreign one, as being more accessible to the generality of readers. When two or more are given, the first place has not always been assigned to the best.

“ The *Synonyms* of HUDSON, LIGHTFOOT, and WITHERING, are also constantly added, when they differ from the Linnæan name, or from each other. And the synonyms of other authors are frequently given, especially in the class Cryptogamia.

To such species as are *doubtful natives*, a note of interrogation is affixed.”

Botanisches Taschenbuch für die Anfänger dieser Wissenschaft, und der Apotheker-kunst, auf das Jahr, 1799.—A Botanical Pocket-Book, for the use of the student of this science, as well as of Pharmacy, for the year 1799. By D. H. HOPPE, 8vo. 225 pp. (price 21 grosch. or about 3s. 6d.) Regensburg, Montag and Weifs.

Germany cannot boast of a more popular and useful botanical almanack than the present, which has now been continued for a whole *decennium*, with undiminished reputation. Its contents are well adapted to promote the study of botany; a science which is more than any other entitled to universal attention, and in which we may reasonably expect a beneficial reform in the present revolutionary age. By such a reform, however, we do not mean to insinuate, that the systematic arrangement or classification of plants, can be much altered and improved; nor is it from new discoveries of rare and curious plants, that the world will be benefited in a degree adequate to these pursuits :

but

but we submit to the consideration of the reader, whether the *useful and æconomical purposes of plants* are sufficiently investigated, understood, or applied? * Our answer cannot be given in the affirmative.

The first article of this 'Pocket-Book,' is a Journal kept in Spring 1798, to record the time of flowering of several vernal plants; by I. N. GEBHARD. The observations were made at Sittschlag, situated in a narrow valley extending from north to south, to the chain of mountains called Tauern, in the Bishoprück of Salzburg, in Germany, and exposed to a rough climate, where the winter begins early in autumn, and the snow melts only after the spring season has considerably advanced. On these German Alps, the author found the *Gentiana verna* in blossom, on the 1st of March; the *Saxifraga oppositifolia*, which consisted here uniformly of five, and sometimes of six petals, on the 10th of March; the *Ranunculus nivalis*, on the 17th; the *Viola biflora*, generally with one flower, on the 24th; the *Arnica Bellidiflorum*, and *Cardamine bellidifolia*, on the 27th; the *Soldanella alpina*, on the 30th; the *Valeriana tripteris*, on the 4th of May; the *Ribes alpinum*, and *Gentiana acaulis*, on the 7th; the *Anemone alpina* and *vernalis*, *Pinguicula alpina*, and *Salix arbuscula*, on the 9th; the *Arabis bellidifolia*, *Antirrhinum alpinum*, on the 10th; the *Bartsia alpina*, *Rhododendron ferrugineum*, *Saxifraga stellaris*, *Potentilla aurea*, and *Azalea procumbens*, on the 14th; the *Saxifraga Cotyledon*, *Myagrum saxatile*, *Hieracium aureum*, *Campanula barbata*, *Gypsophila repens*, and *Thymus alpinus*, on the 19th; the *Erysimum sulphureum*, on the 22d; the *Lonicera alpigena*, and *Senecio alpinus*, on the 28th; the *Tussilago alpina*, *Carduus defloratus*, *Atragene alpina*, *Veronica abyssa* and *integrifolia*, *Utricularia amplexifolia*, *Ranunculus aconitifolius*, *Saxifraga rotundifolia*, *Silene acaulis*, *Sedum rubens*, *Pedicularis comosa* and *recutita*, *Cistus celandicus*, *Primula minima*, and *Empetrum nigrum*, on the 30th and 31st of May.

The next article is a paper written by the same author, and containing reflections on the arrangement of our botanical text-books: the third is a list of some of the Cryptogamia, growing in the mountains of Salzburg, near Hüttischlag; both by the same author.—Some accounts of the Austrian Alps and their plants, by L. TRATTNIK, of Vienna.—A botanical excursion to some of the Alps of Salzburg, Carinthia, and Tyrol, by the editor. The author calculates the height of Mount Glockner, at 6400 feet above the horizon of Klagenfurt: the number of plants collected on this journey, he reckons at 6000, among which are many new and rare alpine plants, e. g. of the former, the *Soldanella alpina*, *Atragene alpina*, &c. *Ranunculus nivalis*, *Gentiana nivalis*, *Arnica glacialis*, *Artemisa glacialis*, and *Ranunculus glacialis*: of the latter description are the new species of the *Hieracium piliferum* and *angustifolium*, and quite a new species, *Cynosurus ovatus*.

The other papers of this annual work are to us less interesting, as they are of a local nature; but we cannot, in this place, omit to mention a work of Mr. Hoppe, the present editor, entitled, *Herbarium rariorum plantarum rariorum, præsertim alpinarum*. It is published in numbers, each containing one hundred plants preserved in such perfection,

as

* See an account of a new work on this subject, in our present Number, under the head of *Domestic Intelligence*, p. 482.

as is unrivalled by any similar attempt: to each plant is affixed a printed paper, with its systematic name and technical definition; the general and particular habitation of the plant; the day on which it was found; and the name of the botanist who collected and communicated the plant to the editor.

Ericorum Icones et Descriptiones, auctore JOHANNO CHRISTOPHORO WENDLAND. Fascicul. III. Abbildung und Beschreibung der Heiden. The three first Numbers, 4to. 1798 and 1799, (price seven rix-doll. or about 11. 8s.) Hanover, HAHN.

This work was begun by the editor in conjunction with Dr. RÖMER, in 1794, who has since relinquished the undertaking, on account of adventitious circumstances. MR. WENDLAND being the director of the Royal Garden at Herrnhäusen, near Hanover, is happily situated, and eminently qualified to communicate to his countrymen the different species of heaths, partly cultivated in that magnificent botanic garden, and partly represented and described in splendid, but expensive English works. Each number contains six plates, on each a different species, not numbered, in order to arrange them at pleasure, when the whole is concluded. The drawings are indeed remarkably correct, but the colouring is inferior to most botanical plates we have lately seen imported from Germany.

The usual description of the character of every species is added with punctual fidelity, and the following are given in these three numbers: *lutea, ramentacea, Pattersoniana, pinea Thunbergii, perspicua, pinea Plukenetii, taxifolia, strigosa, spicata, interrupta Plukenetii, Bergiana, laniflora, coccinea, ventricosa, nutans, incarnata, capitata, and curviflora.*

Beschreibung merkwürdiger Höhlen.—A Description of remarkable Caverns; a Contribution to the Physical History of the Earth. By Dr. ROSEMÜLLER and Dr. TILLESIIUS, 8vo. XVI. and 224 pp. with ten plates, (price three rix-doll. or 12s.) Leipzig, Breitkopf and Hartel.

Our room does not permit us to mention even the names of that multitude of original works from which this interesting description has been collected; but, to gratify the curiosity of the reader, we shall give an account of the different caverns here described: viz. the Devil's Arse, and Elden Cave, near Castleton; Pool's Cave, near Buxton, in Derbyshire; the Cavern near Kiemel's House, in Wales; Mortimer's Cave, in Nottingham; the caverns near Slains and Dunbar, in Scotland; the Caves of Sutherland, Caithness, Cantyre, and near Flamborough-Head; the Caves of the Isle of Arran in Scotland; the Cavern in the Hebride Isle of Bay; the Cave of Fingal, on Staffa; the Caves of Angus-shire; the Baar's Cave in Suther-Island; the Caves of Sniosell and Saurth, on the Wester-Island; the Cavern in New Spain; the Cave at Dondon, on the Island of Hispaniola; the Cavern on the Copper Island; the Cole's Cave at Barbadoes; the Cave of Pustgeskoi, on the mountains of Alta; the Caverns near Murom in Russia; the Cave near Kungur, and those near the banks of the rivers Yenisei and Onon, in Siberia; the Caves near the Ulu Syr and Syokul in Siberia; the Bone-Caves in Egypt; the Cave of Sybilla on Lake Avern; the Grotta di Posilippo and Dog's Cave,

Cave, near Naples; the Grotto of Serpents, near Civita Vecchia; the Cave at Castro Pales; the great Caverns at Alcantara, near Lisbon; the small yellow Cave in the valley of Alcantara, together with an account of their productions, never before described; the Caves near Sassenage; the Witches Grotto, near Ganges, in the Sevens; the Cave of Pilate, in the Swiss Alps; the Caves of Bruder Bahn and Glaris, in Switzerland; the Cavern in the Landgraviate of Saufenberg; the Caves of the Wester-Forest; the Dragon's Hole, in the Landgraviate of Hesse Darmstadt; the Cave near Bredewinde, in the Upper Palatinate; the Cave near Ribar, in the county of Zoll; the Ice-cave, near Scelietze, and the Lungs-Cave, near the Carpathic Mountains; the Horse-hole, near Eise-nach; and the Mouse-Cave, in the Dutchy of Coburg.

The description of the two Caves in the Valley of Alcantara, is masterly and original; but the plates, though engraved by the editors themselves, are, except one or two, very indifferent performances. In short, it appears doubtful to us, whether works of this nature afford to the mineralogist, or rather geologist, that degree of instruction which he expects from their perusal; or whether they are not better calculated to amuse the superficial inquirer, as well as to inspire the admirer of Nature with dignified conceptions, than to answer the practical purposes of science, and its useful application.

POPULAR MEDICINE.

Lectures on Diet and Regimen, &c. by DR. WILlich.

[Concluded from our last Number, pp. 393—396.]

“Nature resents every outrage committed on her treasures, and seldom fails to punish the transgressors with lingering disease, or early dissolution. This observation may be applied to the moral as well as the physical faculties of man. It is commonly said, and not without some degree of truth, that very forward children seldom live to any age; and that too early an exertion of mental powers is in most cases destructive. The same remark holds good in what relates to the body. The inhabitants of hot climates, who frequently marry at the age of ten and twelve, or twelve and fourteen, begin to be old at thirty, and rarely survive the sixtieth year. Every thing which hastens the evolution of the natural powers, every exertion of strength disproportionate to the ability of the individual, should be carefully avoided, as of a dangerous tendency. Hence the great art of education, the great art of living, consists in following the path of Nature.

Fifthly, We should constantly inure ourselves to the habits of supporting and resisting the various impressions of external agency. Some persons who have paid a very rigid attention to diet, have, notwithstanding, been unable to reach even a middling age; while others, who have been addicted to the most irregular and extravagant courses, have been observed to live to one very advanced. Hence arise contradictory maxims in dietetics, which can only be reconciled by deciding chemically between the two extremes, and ascertaining pretty nearly the absolute and relative salubrity of things. All deviations from the rules of diet are in a certain degree hurtful; although these may, in most cases, have only a limited value. Many epicures have been known to reach thei

their seventieth and eightieth year, if they have once survived a certain critical period of their lives. As soon as the body becomes accustomed to the use of certain things, at first disagreeable and perhaps hurtful, the noxious tendency will not only be removed, but we shall find our frame hardened and strengthened by the habit of using them. Nature must stand many a shock, if she would familiarize herself to the vicissitudes of climate and opposite modes of life, but every victory she gains in these encounters, will be a means of rendering her more vigorous and unconquerable. How could the sublime mind of FREDERIC the GREAT have remained so long in its earthly vehicle, if he had not improved, by constant culture and discipline, his original disposition to a long life. A thousand other men, who have endured as much exercise of body and exertion of mind in their younger years, have yet not attained to any remarkable age. Severe and obstinate diseases have also been thought, in many instances, to contribute to the prolongation of life: this is at best, however, but a doubtful point; although it cannot be denied, that many sick persons have, to all appearance, acquired additional strength and spirits, after having recovered from a distressing quartan ague, or some threatening pulmonary disorder.

“*Sixthly*, We may take notice of a certain *steady and equal progress through life*, as highly conducive to the great object in view, whether it flows in the manner of a gentle stream, or resembles the more active course of a rapid river. The mind, when accustomed to certain situations and pursuits, which almost constantly affect it in an uniform manner, is most likely to preserve its reasoning powers unimpaired and strong. He whom neither violent joy convulses, nor deep melancholy corrodes, whose drama of life is not chequered by too sudden vicissitudes, may, with some probability, expect a long enjoyment of that life to which he has become so habituated. There are many whose days quietly glide away, like those of a simple rustic, in continual sameness: such persons, it is observed, generally live to a great age.

“*Seventhly*, A very necessary cause of the attainment of an advanced age is a sound state of digestion. In very old persons, we generally find the digestive organs in excellent condition; nor is there a surer symptom of approaching dissolution, than complaints in the stomach, or frequent returns of indigestion. The Swiss are indebted, it is thought, to the vigorous tone of their digestive organs, for the long preservation of their lives, in general, and for the great number of aged persons among them. Milk and vegetable food seem remarkably well adapted to invigorate the stomach. To effect the same purpose, Lord BACON advises old people to have recourse to strengthening baths, fomentations, and similar *external remedies*, which operate upon the absorbent system; at the same time, a thin but nourishing and moderate diet should be observed, in order to spare the organs of digestion.

“*Eighthly*, and lastly: We may recommend equanimity, or that state of the mind, when, from the happy nature of its pursuits, it is not disquieted by too violent exertions. In the literary professions, and particularly among such individuals as are placed in easy circumstances, we discover as many instances of longevity, as in the more laborious occupations. It was remarked by the ancients, that grammarians and rhetoricians commonly attained a great age. The mind being engaged in scientific pursuits, and other objects in which it finds pleasure, such as conversation

conversation on literary and mixed topics, collecting the productions of Nature, a continual series of mental research, diversifying the pursuits or amusements, yet gradually and constantly persevering in exertions toward the attainment of some principal object,—all supply the vital power, as it were, with materials, like the cruse of oil, which proved a never-failing support to the widow of *Sarepta*. On the other hand, it is a general remark, that deep thinkers, speculative philosophers, and those whose powers are continually absorbed in abstruse inquiry, soon feel the effects of age from the great exertions of their mental powers. This must be understood, however, with exceptions, as in the cases of Sir ISAAC NEWTON, HALLER, EULER, and, the pride of his nation and age, the profound and venerable KANT, still living at Koenigsburg.

It would, perhaps, be considered presumptuous, if we were to give farther extracts from the subsequent chapters of this work, in which the author treats, at large, of Air and Weather; Cleanliness; Dress; Food, Drink, and Spices; Exercise and Rest; Sleeping and Waking; Evacuations; Sexual Intercourse; the Passions and Affections of the Mind; the Organs of Sense; and, the Treatment and Preservation of the Eyes.—To the 'CONCLUSION,' he has subjoined the following *Corollary*:

"A luxurious life, and dissolute manners, not only impoverish a people, but ultimately depopulate the country. Such mischievous consequences can be averted only by laws wisely enacted, duly administered, and experimentally adapted to the natural capacity and disposition of a people: for, if their artificial propensities and desires be not controlled in time, and directed to useful ends, the citizen must degenerate into a feeble and irresolute slave, and his progeny will gradually wither away, like a plant in a foreign soil. Thus Rome was subdued, when she departed from her ancient simplicity of manners, when she adopted foreign and effeminating refinements, and when her feasts and public amusements became too frequent."

In a 'Postscript' the author informs the public, that he purposes, next year, to publish another volume, intended as a counterpart to these Lectures. "Having treated in the present volume, (says he) of almost every subject that relates to the management of the human body in its *healthy* state, my next work shall be entirely appropriated to its treatment in a *diseased* state. It shall comprehend an accurate and clear description of diseases, together with a plan founded on the rules of experience, how to treat and eventually to cure them, especially those of a chronic nature. The administration of medicine ought, in such a work, to be only a *secondary* mean of removing disease; as it will be admitted by the most enlightened and candid of the profession, that, by strictly medical remedies, we can cure *symptoms*, and afford occasional alleviation of pain; but that we cannot affect a favourable change in the nature and progress of a disease, without due attention to food, drink, air, sleep, exercise, or rest, &c.

A few practical Remarks on the Medicinal Effects of Wine and Spirits; with Observations on the Oeconomy of Health: intended principally for the Use of Guardians and others intrusted with the care of Youth: By W. SANDFORD, Surgeon to the Worcester Infirmary. Small 8vo. 152 pp. London. Cadell and Davies.

We think this benevolent work well worthy the most serious attention of those for whose use it is written; and even the medical practitioner will have no cause to regret the time he bestows on its perusal.

Baco Von Verulam über die Lebensverlängerung:—Bacon of Verulam, on the Prolongation of Life. Translated and illustrated with Remarks, by C. A. STRUVE, M. D. 1799. 8vo. 264 pp. (16 gr. or 2s. 8d.) Glogau. Günther.

The illustrious Bacon, who opened new paths of inquiry in various branches of science, also taught his cotemporaries how to promote the beneficial application of physical and historical science, and extend their influence on the happiness of mankind. He not only wrote a profound and valuable work on this subject, entitled, "*Historia vitæ et mortis*," but he also evinced, by his own example, under what circumstances and conditions, man may attain the greatest possible age, and how he may secure his health, together with that of his numerous posterity, against the inroads of disease. He demonstrated, that speculations unsupported by facts, must necessarily mislead us in our investigations of physical objects. We cannot but admire the truly philosophic spirit that prevails throughout his numerous works, as well as in that which has given birth to the present publication; for it is not strictly a translation, but a learned commentary of Bacon's "*Historia vitæ et mortis*," which Dr. Struve has occasionally abridged, enlarged, and illustrated with remarks conformable to the spirit of the age, and consistent with the present state of Medical Science. The German Commentator was of opinion, that his work would serve as a proper counterpart to Professor Hufeland's valuable "*Macrobótica, or the Art of Prolonging Life*," a work that has lately been translated into English, while another much improved and enlarged edition of it appeared in Germany.

Every reader who is acquainted with Bacon's acute and correct method of reasoning; his sagacity of discriminating between fact and opinion, truth and fallacy, sophistry and valid argument; his uncommon perspicuity in arranging facts, and deducing from them the most striking and important conclusions; will, doubtless, agree with us, that Dr. Struve deserves the thanks of his cotemporaries, for having undertaken the arduous task of translating and adapting this judicious treatise to the prevailing taste and opinions; and thus contributing to revive the study of his invaluable works, which, in the present age of hypothetical frivolity, are but too much neglected. It is, however, our duty to remark, that Dr. S. has not bestowed that degree of diligence and industry in translating and illustrating this Latin treatise, which characterises most of his other works on medicine, addressed to unprofessional readers. We mentioned in our first Number, p. 84, that the Royal Humane Society of London had presented this popular writer with a copy of their works, for his excellent treatises on re-animation and

and other subjects connected with the philanthropic views of the Society: grateful for this mark of attention shewn to him by so respectable a body of generous and enlightened individuals, Dr. Struve has lately dedicated the following classical work to that illustrious Society:

Versuch über die Kunst Scheintodte zu beleben, &c.—An Essay on the Art of re-animating persons apparently dead; and on the means of relief in sudden danger of death. A pocket-book in the form of tables. By CHRISTIAN AUGUST STRUVE, M. D. 8vo. 150 pp. exclusive of the dedication, preface, and contents. Hanover. Hahn.

The modest author informs us in the preface, that he was induced to publish this work, in consequence of the approbation bestowed by the German public on his former writings, relative to this subject. He justly claims the indulgence of the scientific reader, if this attempt should be found deficient in the execution; as he is unfavourably situated with respect to literary resources, his place of residence being at a considerable distance from public libraries. His wishes would be much gratified, if the present Essay should excite his countrymen to establish Institutions similar to that of the Royal Humane Society of London, and the Society for the encouragement of useful arts and trades at Hamburgh. He bitterly complains of the want of such Institutions in Germany, while he makes honourable mention of the only Society in imitation of that in London, lately established at Leipzig, by the magistrates of that learned city. Yet he admits that there exist, in Germany, different philanthropic Institutions, such as those for saving persons from fire, in every town of Saxony; the Lying-in Charity at Lübben, in Lower Lausatia, and others.

This compendious work is next addressed to the professional reader, in order to afford him a rational and simple method of treating persons under asphyxia, whether natural or accidental. For this purpose, the tabular form has been adopted by the author as the most proper, especially as it enables the reader, without loss of time, to survey all the rules and cautions, on a sudden emergency.

Those remedies, the application of which is still contested, or which can be resorted to only in particular cases, such as the inspiration of air, venæsection, and tobacco-clysters, Dr. Struve has judiciously classed under a distinct section; as they require the greatest precaution to administer them with success. In this work, he has endeavoured to illustrate chiefly the practical methods of treating persons apparently dead, while it is supposed that medical readers are sufficiently acquainted with the *rationale*, on which this treatment is founded. And in this point of view the author hopes, that his attempt will be received with candour and liberality by the profession. Indeed, there will be little occasion to evince that species of indulgence claimed by the author, *pro captanda benevolentia*; as it would be difficult to find a work which, in the small compass of ten sheets, contains information equally interesting and valuable to the medical practitioner, as well as to the philanthropic assistant.

To enable the reader to survey the multifarious objects treated of in this little volume, we shall here give an outline of its contents.

INTRODUCTION: Section First. I. Historical account of the Institutions established in various parts of Europe, for recovering the lives of persons apparently dead. II. General ideas on the means of resuscitation.

NUMBER X.

R I I

III. Asphyxia.

III. Asphyxia. IV. On some species of apparent death, occasioned by sudden accidents. V. General principles relative to the subject of re-animation. VI. Further analysis of the means of resuscitation. VII. General points to be attended to, in the treatment of accidents, or apparent death. VIII. Circumstances deserving attention in particular cases of asphyxia.

Section Second, Introductory remarks. I. The apparatus for resuscitation. II. Practical principles by which the treatment of the apparently dead, or otherwise unfortunate, is to be regulated. III. General treatment of such persons. IV. Particular directions and rules. V. Tables exhibiting the means employed in the different kinds of asphyxia. VII. A systematic view of these means, according to their effects on the human body. VIII. Remarks on resuscitation, illustrated with successful cases.

Section Third, On the means to be employed in sudden and dangerous accidents. I. General and particular symptoms and circumstances to be inquired into, respecting the nature of such cases; as, hydrophobia, the different species of poison and apoplexy. II. Tables exhibiting the means to be resorted to, according to the nature of the case. III. Remarks on the prevention of hydrophobia.—An alphabetical list of the most remarkable poisonous plants.—A case of a person poisoned by arsenic, &c. Lastly, Retrospect of the different remedies suggested in this work, and how far they may be employed with safety, viz. 1. Venæsection. 2. Opening of the trachea. 3. Clysters. 4. Fluids introduced into the stomach by a syringe. 5. Baths. 6. Shower-bath. 7. Bed of ashes or sand. 8. Earth bath. 9. Friction. 10. Electricity. 11. Inspiration of air. 12. The Tincture of the *Scarabæus majalis*, or *Melœ proscarabæus et Melœ majalis* of Linnaeus. 13. The root of the belladonna. 14. Mercurial ointment, in hydrophobia. 15. Soap-ley. 16. Water saturated with hepatic air. 17. Hahnemann's *liquor vini probatorius*. 18. Precautionary rules for recovering persons suffocated in pits. 19. Purification of the air in damp apartments.

MISCELLANEOUS.

Schwedische Annalen, &c.—The Swedish Annals of Medicine and Natural History. By Dr. RUDOLPHI, &c.

[Concluded from p. 399 of our 1st Number.]

Art. VI.—X. A review of SVEN HEDIN's Scientific Essays, addressed to physicians and surgeons. XI. and XII. Of SVEN A. HEDIN's Manual of the practice of Medicine;—a very just and profound specimen of criticism. XIII. A. I. SEGERSTEDT's Elements of Medicine. XIV. B. BJORN LUND *materia medica selecta*. XVII. ADOLPHI MURRAY & NICOL. A. BERGSTEN *usus modici in fractura et depreffione cranii, casu singulari illustratus*.—Among the XLI. articles which this work contains, we shall take notice only of the XVII. entitled, CAR. P. THUNBERG et CAR. JO. KJELLMANN, *Disq. de usu menyanthidis trifoliatae (Trifolii fibrini)*; the leaves of which are frequently used by brewers as a substitute for the hop. It is asserted, that the beer in which this plant has been boiled much resembles London Porter.

Magazin für gemeinnützige Arzneykunde, &c.—The Magazine devoted to medical subjects of general utility, and medical police. Edited by J. H. RAHN, Member of the Helvetic Republican Senate, No. I. 11½ sheets 8vo. 1799 (12 gr. or 2s.) Zürich. Orell, Fufli and Co.

With this work the venerable Editor recommences his periodical labours, which had been interrupted by the late calamitous events in his native country. As our praise can add but little to his established reputation, we shall extract merely some of the subjects treated of in this popular Magazine: I. Proposals and a Plan of Medical Police-laws for the Helvetic Republic one and indivisible. III. Instructions for Midwives, Fathers, and Mothers; with useful practical advice and cautions against the prejudices and hurtful customs prevailing in midwifery; being a review of a popular book, published at Erlang, in 1798. VII. TISSOT's Directions for treating persons bitten by a mad dog. IX. An Account of some epidemic diseases, particularly the malignant small-pox, which prevailed in several Cantons of the Republic, during the year 1798.

NEW PUBLICATIONS IN GERMANY.

Vorschläge zur Verbesserung der Hospitäler, &c. Suggestions for the Improvement of Hospitals and other charitable Institutions. By WILLIAM BLIZARD, F. R. S. and F. A. S. Translated with additions, respecting the Hospitals and Medical Schools of London, Edinburgh, Bath, and Vienna. By Dr. I. A. ALBERS, physician at Bremen, 8vo. 128 pp. 1799. Iena. In the Academical Shop.

N. B. *We propose to give ample extracts from this highly interesting little work, in our future Numbers; as the German Editor is a gentleman of unquestionable veracity, and personally known in this country, where he resided the greatest part of the years 1796 and 1797.*

Chemische Briefe an Frauenzimmer, &c.—Chemical Letters addressed to ladies; in which the principal subjects of Chemistry are explained in a popular manner; their application to economy, the arts, and amusing experiments are pointed out, and instructions given for arranging and establishing a laboratory. Two volumes, 8vo. with plates (Price 4 rixd. 20 grosch. or about 18s. Brit. curr.) Leipzig. 1779. Meyer.

Kurze Darstellung, &c.—A Concise View of the Chemical Inquiries into the different Gases: by Dr. A. N. SCHERER, &c. 8vo. (6 grosch. or 1s.) Ibid.

Kleine Mineralogische Schriften.—Concise Essays on subjects of Mineralogy: by J. C. W. VOIGT, Counsellor of Mines, 8vo. Part I. with a plate. (20 grosch. or about 3s. 2d.) Ibid.

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TO CORRESPONDENTS.

We acknowledge the receipt of communications from Dr. Sticks, Dr. Scrimshire, Messrs. Ladaill, Brown, Grose, O. W. B. Brande, Pulley, Whyte, Latham, J. M. W. L. F. A. Viator, R. B. M. Henrique Xavier Baeta.

We are concerned to receive so many communications signed only with initials, particularly as several of our friends have suggested the propriety of very narrow limits to such articles.

The hint given us by an obliging Correspondent, respecting the arrangement of the Index, could not be attended to in the present Volume, as it arrived too late; but we shall certainly pay due regard to his suggestion in our next.

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