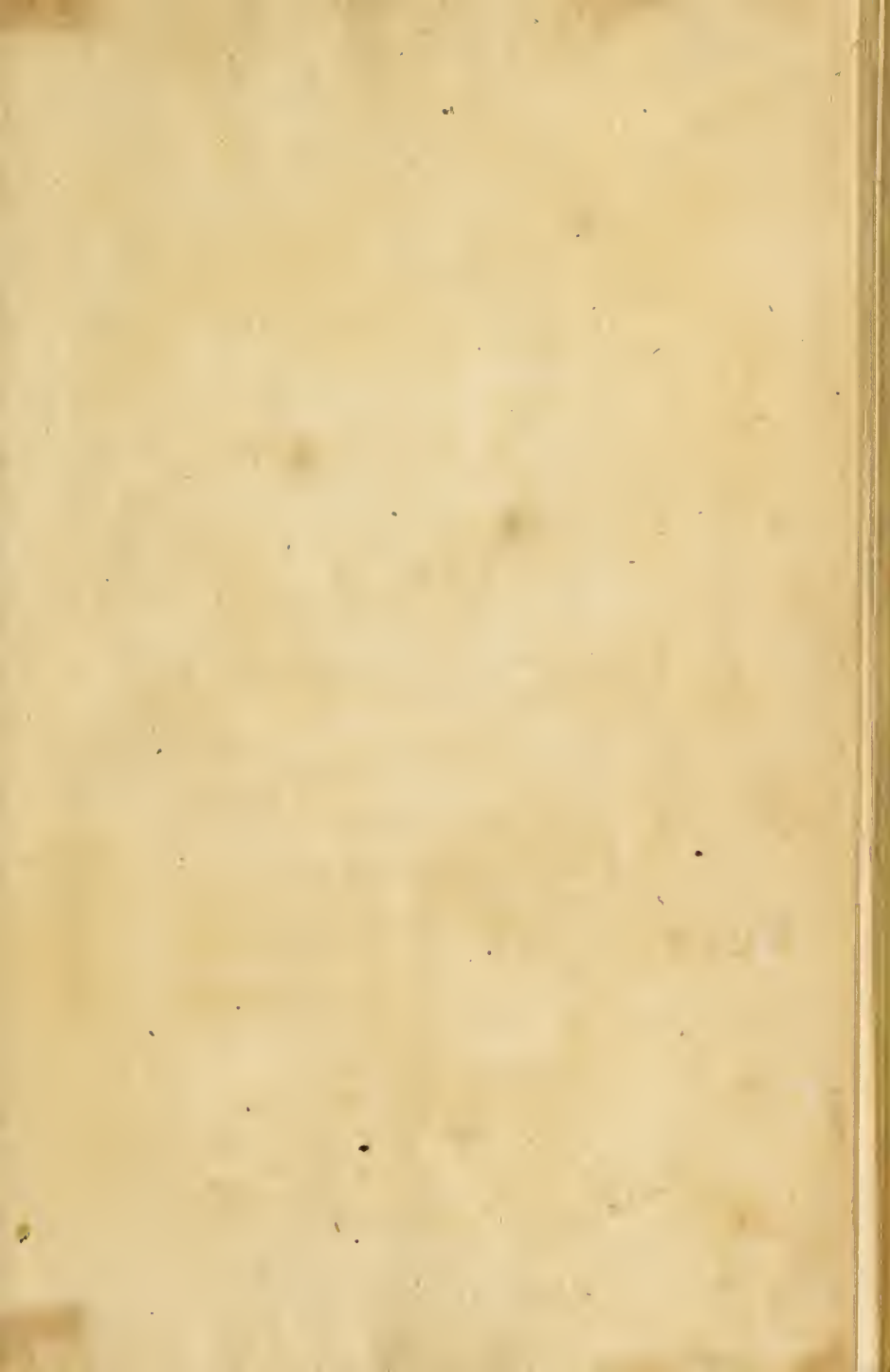


John Crawford,

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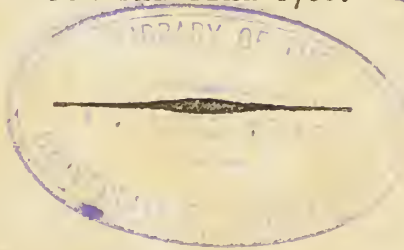


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FOR THE YEAR 1788.



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THE  
L O N D O N  
MEDICAL JOURNAL.

FOR THE YEAR 1788.

PART THE FIRST.



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## LONDON MEDICAL JOURNAL.



- I. *An Account of some Experiments with Opium in the Cure of the Venereal Disease. Extracted from the Correspondence of the Military Hospitals of France, and communicated to Dr. Simmons by J. F. Coste, M. D. First Physician to the French Army.*

**O**F trials made with opium, in the cure of the venereal disease, we have already had occasion at different times\* to give an account. The paper now communicated by Dr. Coste relates to some experiments made on this subject, in the year 1785, in the Military Hospital at Lisle, in Flanders. These trials were conducted by M. Merlin, one of the physicians of the hospital, under the immediate inspection of a Committee appointed for this purpose, and which consisted of M. Desmilleville, first physician of the hospital; M. Boucher and M. Sal-

\* See Vol. III. page 222; Vol. IV. page 419; and Vol. VI. page 5,

mon, physicians at Lisle ; Messieurs Chaftanet, father and fon, furgeons of the hofpital ; and Messieurs Guerin and Gigot, furgeons of two regiments in garrifon at Lifle.

The number of patients fet apart for thefe experiments was thirty, and they were felected by the Committee from a much larger number of venereal patients among the troops in garrifon at Lifle. In nine of thofe cafes recourfe had been had to mercury ; but either no good effect had been obtained from it, or the relief it afforded had been merely palliative : in the remaining twenty one no proper means of cure had been tried.

An accurate register of each cafe was kept by the Committee, who vifited the patients daily during the whole of the treatment. Of thefe registers Dr. Coſte obſerves, that to have printed them entire would have led to a great number of ufelefs repetitions. He has, therefore, deemed it more eligible to give a general view of the facts and obſervations they contain. To this he has added a table, which exhibits a fuccinct view of each cafe.

In ſome of the patients who were felected for thefe experiments the diſeaſe was recent, and the ſymptoms were only the local ones of gonorrhœa

gonorrhœa and chancres; but in the greater number there were blotches and ulcers on the surface of the body, ulcers in the fauces, ophthalmia, nocturnal pains of the bones, nodes, and other usual attendants on the confirmed lues venerea.

The treatment commenced on the 20th of August, 1785, with a purgative medicine, by way of preparation, and the day following with the opium. The patients, in general, began with one grain of pure opium; the day following they took two grains; and in this manner the dose was daily increased, by the addition of a grain, till they got to what the physician deemed a sufficient dose.—The dose of each day was given at once, about three hours after dinner.

In some of the patients the dose was extended to thirty grains, but no farther, except in one case where it was increased to thirty-two grains; and this patient, Dr. Coste observes, took 1706 grains of opium during the course of his treatment, which lasted six months. In this case, however, it was found to have no effect on some condylomata, which likewise resisted different topical applications, mercurial ones excepted, these having been scrupulously

avoided in all the cases. It was remarked, that the long-continued use of opium in this case did not occasion the least sensible inconvenience to the patient, even when he took it in the largest doses.

In the greater number of the patients the highest dose was twenty grains; and this was seldom continued more than four days successively.

The quantity of opium, on an average, taken by those who were deemed cured, was three hundred and fifty grains, and this in the space of six weeks. But in several of the cases the quantity administered during the treatment amounted to eleven and even twelve hundred grains, and in one, as we have seen, to much more. Of these, some were cured; but there were others whose cure was doubtful, and a few in whom the remedy failed altogether.

When it was thought right, from the signs of amendment in a case, to lessen the dose, it was done gradually, with the same precaution that had been observed in increasing it. But when, as sometimes happened, any alarming symptoms were occasioned by the remedy, its use was suspended for several days; and this alone, Dr. Coste observes, was, in general, sufficient



ficient to remove every appearance of inconvenience from the remedy.

The first effect of the opium, when given in a moderate dose, was to lessen pain and the symptoms of morbid irritability. It was seldom before the dose was increased to four or five grains that it produced more sensible effects. The most common was more or less of a disposition to sweating, which continued during the greater part of the treatment.

The sweating did not lessen the secretion of urine: on the contrary, it was observed, that during the whole course of the treatment the quantity of urine was increased.

In a great number of the patients, during the treatment, eruptions appeared on the skin, attended with itching.

In three of the cases a pretty copious salivation was observed to take place\*.

The evacuations by stool were rather increased than diminished. Several of the patients complained of diarrhœa, and only a very few were troubled with obstinate costiveness.

One of the inconveniences produced by the remedy in some of the cases was a vomiting —

\* See the letter from Dr. Coste, in page 26.

a great disposition to sleep took place only in a few; but on the contrary, Dr. Coste observes, that a want of sleep was a much more general complaint. The greater number of the patients complained of an increase of internal heat, and the pulse at the same time was quickened, when the remedy was given in large doses.

Besides these effects, others were occasionally observed to take place, such as giddiness, a kind of intoxication, disagreeable dreams, hicough, palpitation of the heart, and colicky pains. But these effects seldom rendered the use of any particular remedy necessary, as they almost constantly ceased on suspending the use of the opium.

Acids were found useful in checking the disposition to vomit, and in diminishing the propensity to sleep; and nothing was found to contribute more efficaciously to relieve the watchfulness, and its consequences, than the use of simple emulsions.

The patients were confined to a low regimen, which consisted chiefly of rice. Their drink was composed of diluting liquors, given with a view to assist in promoting the disposition to sweating.

The

The patients were required to continue in bed only when the sweating rendered it necessary.

The treatment began, as we have already had occasion to observe, in the month of August, and on the 14th of December following the Committee agreed unanimously in considering seven of the patients as cured.

In the month of March, 1786, fourteen of the thirty patients were in the same unanimous manner considered as cured, as were also four others, by a majority of the Committee. Of seven the cure was, by a majority, declared doubtful; and four were considered as not cured, viz. three by the greater number, and one by the whole of the Committee. The thirtieth patient had been discharged, soon after his admission, as an improper subject, being far advanced in a pulmonary consumption, of which he died soon after.

On the 29th of April, 1786, twenty-four of the patients having been again examined by five members of the Committee, the result of their opinions was less favourable than before. Eight only were now allowed to be cured, viz. two by a majority, and six by the whole of the Committee; the cure of nine was by a  
majority

majority considered as doubtful; and seven were in a similar manner declared to be not cured. Of the remainder of the thirty patients three (two of whom at a former meeting had been considered as cured) were gone from Lisle with their regiment; two had been sent back on account of the scurvy; and the sixth, as hath been already mentioned, was dead.

*Table of the Cases in which Opium was administered.*

[In the cases distinguished by an asterisk no mercury had been exhibited.]

\*1. Bedon, aged 25 years, with swelling of the inguinal glands, and pains of the limbs.  
The treatment lasted 125 days.  
During which he took 1062 gr. of opium.  
The highest dose (continued four days) was 20 grains.  
Cure doubtful.

\*2. Levaffeur, aged 31, with warts, phymosis, and ulcers in the throat.  
The treatment lasted 147 days.  
During which he took 913 gr. of opium.

The

The highest dose (continued four days) was 20 grains.

Cure doubtful.

- \*3. Ieroi, aged 37, with two chancres, and a bubo in suppuration.

The treatment lasted 41 days.

During which he took 458 gr. of opium.

The highest dose (continued two days) was 20 grains.

Cured.

- \*4. Gavala, aged 39, with phymosis, chancres on the prepuce, and swelling of the left inguinal glands.

The treatment lasted 39 days.

During which he took 346 gr. of opium.

The highest dose (continued four days) was 18 grains.

Cured.

- \*5. Grillet, aged 20, with phymosis, chancres, swelling of the inguinal glands, and marks of scrophula.

The treatment lasted 163 days.

During which he took 987 gr. of opium.

The highest dose (continued four days) was 20 grains.

Not cured.

6. Lambert, aged 25, with warts on the penis and prepuce.

Had

Had been treated ineffectually with mercury.

The treatment with opium

lasted - - 42 days.

During which he took 542 gr. of opium.

The highest dose (continued four days) was 20 grains.

Cure doubtful.

- \*7. Delaunay, aged 30, with two buboes, two chancres on the glans penis, and nocturnal pains of the limbs.

The treatment with opium

lasted - - 99 days.

During which he took 1121 gr. of opium.

The highest dose (continued five days) was 28 grains.

Cured.

- \*8. Debailly, aged 20, with gonorrhœa, chordee, chancre, swelling of the inguinal glands, pains, and blotches on the skin.

The treatment with opium

lasted - - 55 days.

During which he took 658 gr. of opium.

The highest dose (continued two days) was 21 grains.

Not cured.

\*9. Leroux,

- \*9. Leroux, aged 23, with gonorrhœa, and two painful buboes.

The treatment with opium

lasted - - - 55 days.

During which he took 539 gr. of opium.

The highest dose (continued four days) was 20 grains.

Cured.

- \*10. Colomb, aged 25, with swelling of the inguinal glands, chancres, and nocturnal pains.

The treatment with opium

lasted - - - 55 days.

During which he took 588 gr. of opium.

The highest dose (continued five days) was 20 grains.

Not cured.

11. Lainier, aged 24, with warts about the anus, and chancres on the glans and prepuce. Had taken mercury.

The treatment with opium

lasted - - - 90 days.

During which he took 580 gr. of opium.

The highest dose (continued four days) was 21 grains.

Cure doubtful.

- \*12. Breuil, aged 25, with a bubo in suppuration, chancres on the penis, and nocturnal pains.

The treatment with opium

lasted - - - 79 days.

During which he took 669 gr. of opium.

The highest dose (continued four days) was 21 grains.

Cure doubtful.

- \*13. Bastiane, aged 34, with warts on the glans penis, chancres on the velum palati, exostosis of the os frontis, and nocturnal pains.

The treatment with opium

lasted - - - 121 days.!

During which he took 572 gr. of opium.

The highest dose (continued four days) was 17 grains.

Cure doubtful.

- \*14. Lamouilliere, aged 18, with warts on the glans and prepuce, and a violent sensation of heat in the urethra.

The treatment with opium

lasted - - - 45 days.

During which he took 545 gr. of opium.



The highest dose (continued four days) was 20 grains.

Cured.

- \*15. Lefeur, aged 22, with chancres on the glans penis.

The treatment with opium

lasted - - 101 days.

During which he took 497 gr. of opium.

The highest dose (continued four days) was 18 grains.

Cured.

16. Mazier, aged 25, with chancres on the glans penis, painful swelling of the inguinal glands on one side, and nocturnal pains.

Had been cured of a former lues by Keyfer's pills.

The treatment with opium

lasted - - 110 days.

During which he took 718 gr. of opium.

The highest dose (continued five days) was 18 grains.

Not cured.

- \*17. Roché, aged 26, with a bubo in the left groin, and a chancre on the prepuce.

The treatment with opium

lasted - - 55 days.

C 2

During

During which he took 553 gr. of opium.

The highest dose (continued eight days) was 20 grains.

Cure doubtful.

18. Chaffelin, aged 19, with warts on the glans and prepuce, which had been preceded by gonorrhœa.

Had tried mercurial frictions and Keyfer's pills without effect.

The treatment with opium

lasted - - 180 days.

During which he took 1706 gr. of opium.

The highest dose (continued two days) was 32 grains.

Not cured.

19. Combet, aged 23, with chancres on the glans and prepuce, swelling of the inguinal glands, and ulceration at the posterior part of the right nostril.

Had tried mercury without effect.

The treatment with opium

lasted - - 115 days.

During which he took 1142 gr. of opium.

The highest dose (continued two days) was 18 grains.

Not cured.

20. Fallaci,

20. Fallaci, aged 26, with violent ophthalmia, acute pains in the arms, painful swelling of the inguinal glands, and chancres.

Had tried mercury.

The treatment with opium

lasted - - - 132 days:

During which he took 449 gr. of opium.

The highest dose (continued two days) was 20 grains.

Not cured.

21. Poyer, aged 26, in a state of marasmus, with pustules on the face, back, and extremities, uvula destroyed, and ulcers on the velum palati.

Had tried mercurial frictions without effect.

The treatment with opium

lasted - - - 102 days.

During which he took 367 gr. of opium.

The highest dose (continued seven days) was 11 grains.

Cure doubtful.

22. Duchon, aged 30, with chancres, eruption on the scrotum, constant pain in the limbs, and loss of his hair.

Had taken mercury.

The

The treatment with opium lasted only 38 days, when it was discontinued on account of the reduced state of the patient, who died soon after of phthisis.

- \*23. Maubert, aged 26, with a deep chancre on the frænum, and swelling of the inguinal glands.

The treatment with opium

lasted - - - 125 days.

During which he took 863 gr. of opium.

The highest dose (conti-

nued three days) was 24 grains.

Not cured.

24. Bouvier, aged 24, with gonorrhœa, hernia humoralis, and chancres.

Had tried mercurial frictions and sublimate.

The treatment with opium

lasted - - - 56 days.

During which he took 450 gr. of opium.

The highest dose (conti-

nued eight days) was 18 grains.

Cured.

- \*25. Marchal, aged 21, with a bubo in each groin, and a wart on the prepuce.

The treatment with opium

lasted - - - 70 days.

During

During which he took 859 gr. of opium.

The highest dose (continued eight days) was 20 grains.

Cure doubtful.

26. Chapuy, aged 28, with warts on the glans and prepuce, gonorrhœa of a year's standing, and hernia humoralis.

Had tried mercurial frictions.

The treatment with opium

lasted - - 42 days.

During which he took 458 gr. of opium.

The highest dose (continued four days) was 18 grains.

Cured.

- \*27. Rayer, aged 22, with recent gonorrhœa, phymosis, and chancres on the glans and prepuce.

The treatment with opium

lasted - - 83 days.

During which he took 446 gr. of opium.

The highest dose (continued four days) was 15 grains.

Cured.

- \*28. Rineffi, aged 22, with gonorrhœa, and hernia humoralis.

The treatment with opium

lasted - - 29 days.

During

During which he took 169 gr. of opium.  
The highest dose (con-  
tinued four days) was 13 grains.

Cured.

- \*29. Lecomte, aged 20, with gonorrhœa, phymosis, swelling of the inguinal glands of the right side, and pains of the limbs.

The treatment with opium

lasted - - 36 days.

During which he took 307 gr. of opium.

The highest dose (con-  
tinued four days) was 15 grains.

Cure doubtful.

- \*30. Duthuit, aged 23, with bubo, and with chancres on the glans and prepuce.

The treatment with opium

lasted - - 106 days.

During which he took 867 gr. of opium.

The highest dose (con-  
tinued 15 days) was 18 grains.

Cure doubtful.

Besides the ten cases marked *cured* in the foregoing table, there are five others, viz. the 11th, 12th, 21st, 29th, and 30th, which Dr. Coste thinks might not improperly be added to the

the list of cures, they having been considered as cured at a full meeting of the Committee in March, and some appearances which induced three, out of five, of the members who met the month following, to deem the cures doubtful, not having been sufficient in his opinion to invalidate the first decision of the Committee: Dr. Coste, however, candidly acknowledges that, upon the whole, these experiments are far from proving that opium is a specific for the lues venerea; but he is of opinion that they afford abundant and indisputable proofs of the useful effects we may expect from it in cases where too great a degree of irritability requires us to suspend the use of mercury, or to moderate the effects of that remedy. He observes also, that it may be advantageously applied in a variety of cases in which mercury has been tried without success, particularly in those in which the symptoms appear to be as much the effect of an improper use of mercury as of any remains of the venereal virus\*.

Since the preceding account was communicated to us, Dr. Coste, in a letter, of which

\* This agrees with the observations of Mr. Grant on this subject. See Vol. VI. page 15. — EDITOR.

we shall here give an extract, has had the goodness to reply to some inquiries made by the Editor relative to these experiments.

“ The cures \* I have mentioned,” he says, “ were certainly deemed such on the clearest evidence, and I have the satisfaction of being able to add that they have been permanent.

“ Of the three patients you inquire after, who suffered a pretty copious salivation, the first had never undergone any mercurial treatment. He was both scorbutic and scrophulous, and received but little relief from the use of opium. The second had just begun the use of some mercurial remedies (but of which I am unable to give you either the forms or the doses) when he was placed under the care of Dr. Merlin, who cured him perfectly with opium. The third, who was likewise successfully treated with opium,

\* To some of the cases marked in the table as cured, it may perhaps be objected, that as the complaints in those cases were merely local, they can hardly be considered as proofs of the efficacy of opium in the cure of the venereal disease; especially when we take into the account the use of topical applications, the regimen of the patients, the length of time employed in the cure, and other circumstances.—EDITOR.

“ had



“ had been cured of a former venereal com-  
 “ plaint, six years before, by taking Keyser’s  
 “ pills.

“ The papers from which I drew up my re-  
 “ port of the experiments do not determine  
 “ so precisely, as you appear to desire, the  
 “ exact state of the pulse: you may rest as-  
 “ sured, however, that in all the cases at Lisle  
 “ there was a very sensible acceleration of the  
 “ pulse during the action of the opium.

“ You seem to wish that I had described  
 “ more at length the particulars of the several  
 “ experiments. But in the extract I was to  
 “ give I thought it best to confine myself to  
 “ the more general circumstances that attended  
 “ them. The complete history, however, of  
 “ all the cases shall be given as soon as possi-  
 “ ble, together with the additional facts which  
 “ the daily practice of our hospitals continues  
 “ to afford.

“ *Versailles,*

“ 4 Nov. 30th, 1787.”

II. *An Account of the Insect found in the Itch.*  
*From a Work lately published, in German, on*  
*the Etiology of that Disease\**, by J. E.  
 Wichmann, M. D. Physician to His Majesty  
 at Hanover, and Member of the Royal Society  
 of Sciences at Goettingen, &c.

**T**HAT the itch is simply a local affection of the skin, occasioned by animalcula, has been a pretty general opinion in this country, since the description given by the late Dr. Mead † of the insect found in this disease by Bonomo. But, of those who have adopted this idea, very few, probably, have had an opportunity of convincing themselves, by their own observation, how far it is founded in truth; and it is certain there are many who still doubt, and even deny, the existence of the insect in question. It was the difference of opinion that prevails on this head, and the doubts he himself

\* Aetiologie der Krätze; von Johann Ernst Wichmann, d. A. D. Königl. Großbritt. Hofmedicus zu Hannover, Mitgliede der Königl. Gesellschaft der Wissenschaften zu Goettingen, und der Gesellschaft Naturforschender Freunde zu Berlin. 8vo. Hannover, 1786.

† Philosophical Transactions, Vol. XXIII. for the year 1702, page 1296.

had concerning it, that induced the author of the work now before us to direct his attention to this subject.

The first account he met with of these insects was by Mousset, whose description of the *Syrones*, in his *Theatrum Insectorum*\*, he supposes to be applicable to the itch insect. Of the Syro Mousset says, “Animalculum  
 “est omnium minutissimum, solens innasce  
 “caseo, & ceræ inveteratis, & cuti item hu-  
 “manæ. . . . . Anglice *mites*, in caseo, foliis,  
 “ligno arido, atque cera; sed in homine  
 “*wheale wormes* dicuntur, & Germanice *Seu-*  
 “*ren*. Ita sub cute habitat, ut actis cuniculis  
 “pruritus maximum loco ingeneret, præci-  
 “pue manibus, vel aliis partibus affectis & igni  
 “admotis. Extractus acu, & super ungue po-  
 “situs, movet se, si solis etiam calore adjuve-  
 “tur. . . . . Hoc obiter est observandum, *Sy-*  
 “*rones* istos non in ipsis pustulis, sed prope  
 “habitare. Illorum quippe proprium est non  
 “longe residere ab humore aqueo in vesicula  
 “vel pustula collecto: quo absumpto, vel ex-  
 “iccato, brevi omnes intereunt. Neque *Sy-*

\* Page 266.

“ rones isti sunt de pediculorum genere ; nam  
 “ illi extra cutem vivunt, hi vero non.”

In the same work also he found the following quotation, relative to the Syrones, from the writings of an Arabian physician, who flourished in the twelfth century : “ *Syrones* (inquit  
 “ *Abinzoar*), *Affoalat* & *Affoab* dicti, sunt pe-  
 “ dicelli subter manuum crurumque & pedum  
 “ cutem serpentes, & pustulas ibidem exci-  
 “ tantes aquâ plenas : tam parva animalcula,  
 “ ut vix visu perspicaci discerni valeant \*.”

As Mousset, whose work was published in 1634, mentions the name those insects go by among the Germans, our author's curiosity led him to examine the German writers on insects before that period, but without being able to find any thing on this subject. In a work †, however, by Hauptmanns, a physician at Dresden, published twenty years after Mousset's, he unexpectedly met with something relative to this matter. This writer mentions the animalcula he had found in the itch, and which, he says, are called *Acari* or *Cyrones*, and by the

\* *Theatrum Insectorum*, page 266.

† *Uhralten Wolkensteinischen Warmen Bad und Wasser-  
 schatze*. 8vo. Dresden, 1654.

Germans *Rietliefen*. He observes, that so far as he had examined them with a microscope, they seemed to agree with the insects which are found in cheese. Our author supposes this writer to have been the first who has given a figure of the itch insect; but this figure is inaccurate, and the description, like the preceding accounts of it, obscure; so that the existence of the insect can hardly be said to have been clearly and satisfactorily ascertained till the time of Bonomo.

The Italian original of the letter \* from Bonomo to Redi on this subject, printed at Florence in 1683, is now extremely scarce; but a Latin translation of it, by Lanzoni, may be found in the *Miscell. Natur. Curios.* †. This

\* Osservazioni intorno a pelicelli del corpo umano dal G. Cos. Bonomo, e da lui con altre osservazioni scritte in una lettera al Fr. Redi.

† Observationes circa humani Corporis Teredinem, a Cl. Joh. Cosmo Bonomo, pratico insignissimo Liburni, una cum aliis epistolica hac in exercitatione ad Eoos penes Hesperiosq. famigeratissimum, illustr. Franciscum Redum, Italico sermone anno 1687 conscriptæ & Florentiæ typis impressæ, nunc vero Latinitate donatæ a Josepho Lanzono, Acad. Cur.— Vid. Append. ad annum Decimum Decuriæ 2. *Ephem. Med. Phys. Nat. Cur.* 4to. Norimbergæ, 1692.

discovery;

discovery, however, did not seem to excite much attention till Dr. Mead\* gave an account of

\* Dr. Wichmann has inserted in his work the whole of Dr. Mead's paper on this subject; but to reprint it here would be superfluous, as it may be found not only in the Philosophical Transactions, but also in Dr. Mead's works, and in Mihles's Medical Essays.—It may not be improper, however, to observe, that Dr. Mead, by omitting the beginning of Bonomo's letter to Redi, has not fully stated the circumstances that led to the discovery of the insect in question, and has given to Bonomo the credit of observations for which we find Bonomo acknowledging himself indebted to one of his friends, whom he names. As the passage relative to this matter, in Bonomo's letter, is curious, we shall transcribe it from the Latin translation by Lanzoni. It is as follows :

“ Casu fortuitove se mihi legendum obtulit in celebri Vo-  
 “ cabulario dell' *Academia della Crusca* ab hujus compilatori-  
 “ bus asseri Teredinem, qua ut plurimum scabie infectorum  
 “ cutis scalet, in perexiguis, ac minutulis animaleulis consis-  
 “ tere; ecce ipsissima Vocabularii verba: *Pellicello i un pic-*  
 “ *colissimo Bacolino, il quale si genera a Rognosi in pelle*  
 “ *e rodendo eagiona un' acutissimo pizzicore.* Idem sentire  
 “ postmodum observavi Joseph. Laurentium in sua *Amal-*  
 “ *thea*, dum scripsit: *Acarus. Teredo. Vermiculus exiguus*  
 “ *subcutaneus rodens. Pidicello. et Lit. T. Teredo. Vermis in*  
 “ *ligno nascens: Caries: Item acarus rodens carnem sub cute;*  
 “ *Pidicello.* His itaque sic lectitatis, iterata, sedulaque expe-  
 “ rientia ferutandi prurigne tactus sum, an dielæ Teredines  
 “ animalcula veré sint, serioque consului eruditifs. Hyacin-  
 “ thura

of it in the Philosophical Transactions; and even since that time many of the writers who have described this insect have contented themselves with copying the observations of Bonomo, without examining the matter themselves: our author particularly mentions Bonanni\*, Schwiebe†, and Baker‡, whose descriptions are all taken from this source. Even some of those, our author remarks, who have

“ thum Cestonium, ejus in experiendo probatæ sedulitatis;  
 “ quæ multo ante tibi vir el. innotuit. Multoties ergo obser-  
 “ vasse mihi constanter asseveravit, mulierculas propriis e sca-  
 “ biofis filiolis acus extremitate nescio quid educere, quod in  
 “ lævæ manus pollicis ungue, alterius manus pollicis ungue  
 “ compressum, in ipsa compressione aliquem parvum sonum  
 “ facere videtur, hoc autem educi a minutioribus tuberculis  
 “ scabiosis, perfecta nondum sanie scatentibus, vel ut voci-  
 “ tant immaturis; mutua quod iidem charitate inter remiges,  
 “ & mancipia Balnei Liburnensis, si scabies infestaret, fieri  
 “ adnotavit. Inde subdidit non sibi tamen certo constare, an  
 “ Teredines e vermiculorum censu forent, promptè tamen de  
 “ eo certiore se reddendi occasionem daturam, multis expe-  
 “ rimentis in scabioso quopiam, quo autopsia infallibili in af-  
 “ firmativam, vel negativam partem declinandum docere-  
 “ mur.” — EDITOR.

\* Observ. circa vivent. Romæ, 1699.

† Dissert. de pruritu exanthematum ab acaris. Lipsiæ,  
 1722.

‡ Microscope made easy. 8vo. London, 1743.

VOL. IX. PART I. E acquired

acquired reputation in the present century by microscopical discoveries, as Leeuwenhoeck, Reaumur, and Swammerdam, have either not thought it worth their while to examine this matter, or, like many learned men now living, were perhaps unable, for want of the necessary dexterity, to find these insects. It is certain, he adds, that Leeuwenhoeck \*, although he has accurately described the acari of meal, has totally omitted those found in the itch.

At length the attention of physicians and naturalists was directed afresh to this subject by the celebrated Linnæus †; and the itch insect was almost generally admitted even by those who had not seen the insect, but who relied on the authority of that great naturalist for its existence.

After giving an account of the discovery of these insects, our author proceeds to consider more particularly their natural history. The genus (*Acarus*) to which they belong is, he observes, very numerous, and its different species have not all of them been accurately determined. He confines his inquiries, however,

\* *Arcana Naturæ detect.* 4to. 1722. Epist. 77, p. 356.

† *Exanthemata viva.* 4to. Upsal. 1757.



to the two species which are found in meal and in the itch.

That there should be confusion in determining these species, he thinks, will not be wondered at, when we are told that even at the present day naturalists differ concerning their figure, and dispute whether what one sees on the head of these minute animals are to be considered as antennæ or feet. Thus, of many naturalists, to name only a few of rank, Linnæus\* has only *tentacula*; Schæffer † has *antennæ pediformes articulatae*; while Baron de Geer ‡ expressly says they have no antennæ, but two arms, with joints, which resemble those of spiders, who have likewise no antennæ.

Another source of confusion in the arrangement of these insects has arisen, our author thinks, from the ambiguity of the generical character, which depends on the number of eight feet, whereas many have observed only six. Baron de Geer, however, has explained this by shewing that in the young acari farinæ the eighth

\* System. Natur. Edit. XII.

† Elementa Entomologiæ. 4to. 1766.

‡ Memoires pour servir a l'Histoire des Insectes. 1778.  
Tom. VII. p. 85.

pair is wanting. This observation, however, Dr. Wichmann remarks, is not new, having been made long ago by Leeuwenhoeck\*. He himself, he tells us, as well as Mr. Goetze †, in examining the acari of meal, has frequently found some with six, and others with eight, feet; but in those of cheese he has uniformly found eight.

Linnæus, our author observes, in his dissertation already quoted, entitled *Exanthemata viva*, asserts, that nurses, when they sprinkle children under the axillæ, &c. with flour that contains acari, give them the itch; and from this infers that the acarus of meal and that of the itch are of the same species ‡. But Dr. Wichmann contends, and we believe very justly, that the erup-

\* Arcan. Natur. 4to. 1722. p. 356.

† Abhandl. aus der Insectologie, p. 333.

‡ “ Caseum vel farinam, diu de loco non motam, multa horum millia alere, non raro observamus; hinc evenit, ut, quum nutrices loco Pollinis Lycopodii, Florum Zinci, &c. infantes intertrigine laborantes *farina frumenti* conspergant, inguina & axillæ, eadem adspersæ, in scabiem efflorescant; quod malum, sæpius curatum, idemtidem rediit, quoties farinæ adspersio iterata fuerit, aliosque infecit infantes. Hinc Farinæ & Scabiei Acaros unam constituere eandemque speciem concludimus.”

tion which is sometimes excited in children by this means is very different from the true itch, and that it soon disappears without any assistance from medicine. He observes also that in the *Fauna Suecica* \*, Linnæus, although he has there accurately described the insect found in the itch, has confounded it with the acarus of meal; and that still more lately, in the twelfth and last edition of his *Systema Naturæ*, he had so little altered his opinion, that, after describing the *Acarus Siro*, he expressly adds, “*Inter Sirones farinæ, Scabiei . . . vix etiamnum reperi alias differentias, quam a loco petitas †.*”

The

\* Page 482.

† We think it right to observe here, that the seeming confusion on this subject, in the writings of Linnæus, appears to have arisen from an opinion he had adopted, of the existence of more than one species of itch; for besides the itch which he imagined might be excited by the *Acarus Siro*, or that species which is found in meal, he supposed that in another and more inveterate kind of itch, the *Scabies ferina*, the disease is occasioned by a different species of *Acarus*, the *Acarus excrucians*, which he has described with his usual accuracy, and which is indisputably the true itch insect. This he no where confounds with the *A. Siro*, but expressly says it is a distinct species. Thus, in the *Dissertation (Exanthemata viva)* just  
now

The German translator and commentator of Linnæus, Professor Muller, has taken occasion\* to observe, however, that a difference exists between the acari of cheese and those of meal, as well as between the latter and those of the itch; but several medical writers, our author remarks, (and particularly Rosenstein, in his Treatise on the Diseases of Children) relying on the authority of Linnæus, that the same animalcula are found in meal as in the itch, have asserted that flour, in which there are acari, is capable of communicating this disease. To this confusion of species our au-

Now quoted, we find him observing, that “ In scabie ferina acari ægrius inveniuntur; exemptos vero, *aliam esse speciem* (acarus exulcerans) & pedibus quatuor posticis, corpore duplo longioribus, distinctos.” And again, in his System. Natur. immediately after the *Acarus Siro*, he places the “ *Acarus exulcerans*, pedibus longissimis setaceis; anticis duobus brevibus;” and adds, “ habitat in scabie ferina.” A similar division of the itch, into a mild species and one more virulent, was made by the ancients. Thus Celsus, (de Medicin. lib. v. cap. 28.) in treating of the itch (*scabies*), observes, that “ Quo asperior est, quoque prurit magis, eo difficilius tollitur. Itaque eam, quæ talis est, ἀγριαν Græci appellant, id est *feram*.” — EDITOR.

\* Linné, Natur - System. Nurnberg, 1775. Part. V. p. 1050.

thor

thor attributes an assertion by Professor Murray \*, in his, in other respects, judicious account of the itch, viz. that, previous to any appearance of pustules, there is always a foulness of the juices, and that when this foulness has got to a certain height, the acari of cheese or meal are induced to seek a nidus in the skin; and of course he must suppose these to be of the same species as those of the itch.

Professor Pallas also, Dr. Wichmann observes, has omitted to distinguish these insects properly, as he says, “*Acarus scabiei*, *acaro farinæ* “*est confanguineus †.*” But Baron de Geer, he acknowledges, has very accurately discriminated these species, and shewn that the *acarus domesticus*, (or that species which is found in cheese, &c.) the *acarus farinæ*, and the *acaras scabiei*, are all very different from each other. Of the second of these species, he says, “*Acarus (farinæ) oblongus albus, capite rufescente, pedibus conicis crassioribus æqualibus;*” and of the last, or itch insect, “*Acarus (scabiei) subrotundus albus, pedibus*

\* De Vermibus in Lepra obviis. 4to. Goetting. 1769. p. 9.

† Diff. de Insectis viventibus. 4to. 1760. p. 2.

“ rufescen-

“ rufescentibus brevibus ; posticis quatuor seta  
 “ longissima, plantis quatuor anticis fistulatis  
 “ capitulo terminatis \*.”

In speaking of the manner of finding these insects in the itch, our author observes, that the failure of many who have sought for them has been owing to their having expected to meet with them in the larger vesicles that contain a yellowish fluid, like pus ; in these, however, he tells us, he has never found them, but in those pustules only which are recent, and contain only a watery fluid : we must, therefore, he observes, not expect to find them in the same proportionate number in patients, who, for many months, have been afflicted with the disease, as in those in whom its appearance is recent, and where it is confined to the fingers or wrists. The cause of this difference with respect to the pustules, he conjectures, may be owing to the death of the insect after it has deposited its eggs.

A small transparent vesicle being found, a very minute, white point, distinct from the surrounding fluid, may be discovered, and very

\* Mem. pour servir a l'Histoire des Insectes. Tom. VII.  
 P. 94.

often even without the assistance of a glass; this is the insect, which may easily be taken out on the point of a needle or penknife, and when placed on a green cloth, may be seen much more distinctly, and observed to move\*.

The author remarks, that even before such a transparent vesicle is formed, we may often discover traces of the insect on the fingers or hands, in a reddish streak or furrow, which is occasioned by the acarus; and he adds, that it is even more usual to find it in these furrows than in the pustules themselves. He tells us,

\* Fabricius (Faun. Groenland. p. 221) has mentioned the dexterity of the Groenlanders in extracting this insect. "Habitat," says he, "in vesicula scabiei Groenlandorum, qui illum acu eximere scientes, mihi miranti, ut vivum animal incedentem ostenderunt." — Linnæus, in describing it, (Faun. Succic. 1194) says, "Habitat sub cute hominis scabiem caussans, ubi vesiculam excitavit, parum recedit, corporis rugas secutus, quiescit iterum & titillationem excitat; nudis oculis sub cuticula delitescens observatur ab adfucto, acu facile eximitur, ungui impositus vix movetur, si vero oris calido halitu affletur, agilis in ungue cursitat.;" and Baron de Geer (Mém. pour servir a l'Histoire des Insectes, Tom. VII.) observes, that the insects he has had occasion to extract from itchy sores were extremely minute, not larger than a grain of common sand. "At first," says he, "when they are taken from under the epidermis, they seem to be without motion, but by degrees they begin to move their feet, and to crawl, though slowly." — EDITOR.

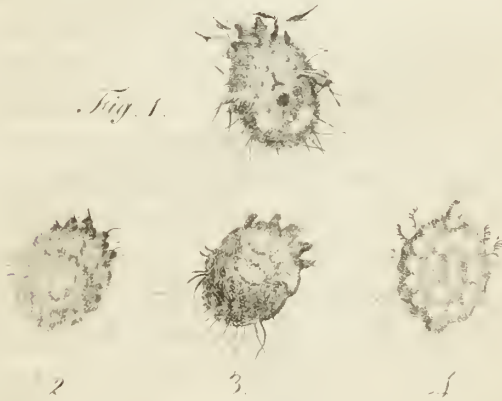
that a friend of his at Hanover (who had the itch in a slight degree, and to whose accurate inquiries with an excellent microscope he acknowledges himself much indebted) found several insects in such furrows. Two of the longest of the furrows were about an inch in extent. They seemed to be thoroughly dry, but exhibited here and there very minute shining and transparent spots. These spots, however, were not at all elevated above the surface of the skin, and although several of them were opened and examined, no insect was found in them. These furrows he has observed only on the hands and fingers, having in vain sought for them on the legs, and other parts of the body, in his children, who had the itch in a high degree.

The appearance of these insects, when viewed through a microscope, will be best understood by the figures of them which we have copied from Dr. Wichmann's work. The first of these figures represents the *acarus farinae*; the second and third are the itch insect, as they appeared through the author's microscope; and the fourth is a figure of the same insect, as given by Bonomo.

In order to assure himself of the accuracy of his figures, the author tells us he sent them,



together with some vesicles taken from a patient with the itch, to his friend, Mr. Goetze, of Quedlinbourg, who has acquired distinguished reputation as a naturalist, and whose skill in microscopical observations is well known: this gentleman compared them with the same objects as seen through his own microscope, and found them accurately represented.



From these figures, the body of the *acarus farinae* appears to be more oblong than that of the itch insect, and the feet of the latter, the author observes, are placed much nearer the head than in most other species of acari, and are shorter and thicker.

III. *Remarks on elastic Bandages. Communicated in a Letter to Dr. Simmons by Mr. James Lucas, one of the Surgeons of the General Infirmary at Leeds.*

**H**AVING seen a piece of mechanism, in which circular brass wires (similar to those in Vanbutchel's hatbands, &c.) were with ingenuity employed to act in opposite directions, it immediately occurred to me, that a bandage, with such elastic springs, might, in many cases, prove useful. Not long after this I had the misfortune to sprain my ankle, and the confinement this accident occasioned gave me an opportunity of paying more attention to the subject than I otherwise should have done, and of contriving a sling with elastic wires, which enabled me to walk sooner, and with less pain, as well as with less hazard of a fresh strain.

The construction of an elastic bandage is simple; not expensive, or burdensome; but is easily adapted, readily altered, and capable of being applied to a variety of purposes.

By communicating my experience on this subject to different surgeons of my acquaintance, I found that the same idea had occurred

to Mr. Park, of Liverpool, who shewed me some strong circular wire, which he had occasionally used in bandages.

The pinmakers have a ready method of spinning circular brass wire; but if it should be required of a flat form, the wire, I am told, must be of another sort, as brass wire cannot be so formed.

The strength of the springs is best increased by an additional number of wires placed near together. Wire, with its circular turns at a little distance, is better suited for such purposes, from its being more readily put in motion, and springing more freely, than that which is spun closer. Short pieces of the wire will, in general, be preferable to long ones.

I have commonly used pieces of circular brass wire from half an inch to an inch in circumference, and three or four inches long, turned, at each end, into the form of a ring, which may be attached to the middle or any parts of a bandage, belt of cotton, girth web, or leather strap, that part to which the springs are fastened being left so loose as to permit them to act with freedom, and yet not to be overstretched.

Should

Should one spring, or even all the springs break, the bandage would still prove a sufficient support.

Where wire cannot be adopted, probably the vegetable gum, catgut, or some other elastic substance, might be substituted.

Flannel, not only from its being less uncomfortable when wet, but also from the convenience attending its elasticity, is now generally preferred to linen for common bandages.

If an elastic bandage is sufficiently strong, it has greatly the advantage of stiff metal, or a metal joint, by not, in any respect, impeding the natural motion of a joint from being gradually restored.

Springs are most powerful when contrived to counteract each other, in imitation of the flexor and extensor muscles; but the springs should be made stronger on that part where the support is chiefly required.

It may not only be necessary to apply an elastic bandage to the affected, but also to the neighbouring parts, that the limb may be less burdensome, and that the aid of muscular powers, unimpaired, may be called in.

It is often requisite to confine the motion of the springs by circular straps, fixed near that  
part

part of the bandage where the different wires are attached, and where the pressure from the wires would be uneasy to defend the parts with a quilted pad.

Spring straps, I have no doubt, will often be found of advantage to those who wear artificial legs, or other pieces of mechanism, and spring belts would, no doubt, greatly assist those who carry heavy burdens.

When the patella has been fractured, such a contrivance seems well calculated to support the knee; and as it is a well-known fact, that the other knee seldom long escapes the same accident, might it not be well to wear an elastic bandage on the sound as well as the injured knee? In a case where the ligament of the knee was partially ruptured, a patient of mine was much benefited by the use of such a bandage.

In another case, where both thighs had been fractured, and the patient remained unable to move for five or six months, much more advantage arose from the use of elastic bandages than I could possibly have expected, as she had the use of both limbs in a short space of time, and can now walk with a stick.

As these hints may prove of advantage to those who have a mechanical turn, I have taken the liberty of submitting them to you for publication in the next volume of the Medical Journal.

*Leeds,*

Nov. 20, 1787.

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IV. *An Account of the Efficacy of Arsenic in Intermit-  
tents. Communicated in a Letter to Dr.  
Simmons by Mr. J. C. Jenner, Surgeon at  
Painswick, in Gloucestershire.*

**T**HIS town, which is situated on the side of a hill, and is remarkable for the purity of its air, is very populous. In the year 1784 the epidemic ague, that prevailed in many parts of the kingdom, made its appearance in this place, and has continued till the present time; although previously to that period the disease was hardly ever seen here, unless a stranger came with it, for the recovery of his health, on account of the healthy situation of the place.

It affected whole families, and appeared to be most violent in spring and autumn. In the summer of 1786 it was followed by a fever of the  
kind

kind called typhus, or low nervous, which not unfrequently degenerated into a putrid fever, and proved very fatal.

For the cure of the intermittents the bark was administered in a variety of forms and doses. Some were entirely cured by it; but in the greater number of patients the disease returned, and continued for many months. It was, indeed, seldom suspended any longer than the use of the bark was continued; and as the disease was chiefly amongst the poor, many of whom could not afford to take so expensive a medicine long enough, the disease, in such cases, continued till the constitution either got the better of it, or till it brought on other complaints, and destroyed the patient. Similar events also took place in patients who, from vulgar prejudice, refused to take the bark; and in children who could not be prevailed with to take it in a proper quantity.

About this time Dr. Fowler having published his Medical Reports of the Effects of Arsenic in Agues, &c. I began to make trial of its effects, and I am happy in being able to say that it has never failed me of success where it has been taken properly, and no collateral circumstances have forbid the use of it. I have now

given it to upwards of two hundred patients, and have never seen any bad effects from its administration; and I think it is not improbable that in the cases where it is said to have produced violent effects, (and which have deterred many persons from having recourse to it) some particle of arsenic has got into the stomach in an undissolved state, for want of the medicine being carefully filtered after it is cold, and the whole quantity of water added; a precaution Dr. Fowler has omitted, but which I think absolutely necessary to the safe administration of the solution. I have given it in very large doses, and have never seen any alarming symptom from a cautious administration of it. In one patient, however, who, by mistake, took twenty-five instead of fifteen drops\* of the solution at a dose, for the cure of an intermittent, it brought on a swelling of the face; but this went off on her leaving off the medicine, and the patient continues free from ague and every other complaint. With another patient, a poor man who had had a quotidian fifteen months, and had taken large quantities of bark, as well as

\* Eighty drops of the solution contain about half a grain of arsenic. — See Vol. VII. page 197.



other medicines, for the cure of it, but without suspending it longer than a few days, I began with fifteen drops of the mineral solution three times a day. At the end of five days, as it produced no good effect, I increased the dose to eighteen drops, which he continued three days, but still without effect. The medicine was then omitted for three or four days, and then given again in doses first of twenty, and afterwards of twenty-five drops three times a day. In this last dose it produced griping and pain of the bowels, with diarrhœa, but put a stop to the disease. I now omitted the solution, gave him an ounce of tincture of rhubarb in the morning, and an opiate at night, put him on a milk diet, and, in a few days, the complaint of his bowels ceased, and he has remained well ever since.

As a proof of the efficacy of the mineral solution in a violent periodical head-ach, I shall add the following case :

In the beginning of June, 1787, a gentleman, aged twenty-one years, and of a delicate constitution, was attacked with a pain of his head, attended with nausea. An emetic afforded him some relief; but as the head-ach continued to return every night, he had recourse to

the bark, and the complaint ceased. In a few days, however, it returned again with great violence, affecting principally the forehead and one side of the face and teeth. A carious tooth was now extracted at the earnest desire of the patient; but the pain still continued, accompanied with spasmodic affections of various parts. After this, by the advice of different physicians of eminence, who were consulted at different times, he tried a variety of remedies both topical and internal. Among the former were leeches, blisters, cupping, fomentations, and æther. Æther was also administered internally. Opium, with camphor and antimonial wine, were given during the paroxysms, and in the intermissions the bark was exhibited freely. The opiate alleviated, in some measure, the violence of the pain, and the bark repeatedly suspended the complaint for several days; but it returned again even during the use of the remedy, and was at times so violent that the patient cried out; and, in order to lessen it, was sometimes obliged to have his head pressed the whole night by an attendant.

At the beginning of September, the pain still continuing to return, and the bark (of which he had tried both the red and the pale species,  
and

and was still taking to the amount of an ounce a day in substance) being now become offensive to his stomach, and procuring no relief, I determined to try the mineral solution. Fifteen drops of it were accordingly given thrice a day for five days, and during this period the disease gradually disappeared. The medicine produced no griping or pain of the bowels, nor any other sensible effect, excepting a slight nausea after the morning dose, which was probably owing to the emptiness of the stomach. It was observed, however, that his appetite was rather impaired during the use of the solution, a circumstance that had never happened before during the whole course of the disease. It was, therefore, omitted, and in its stead two tea-spoonfuls of a mixture of equal parts of Huxham's tincture of bark and the spirituous tincture of rhubarb were directed to be taken. At the end of a week the solution was again repeated as before, for three days, by way of prevention; but was then wholly laid aside, as he continued to be free from complaint, and has remained well ever since.

I could communicate to you a variety of other instances of the salutary effects of this medicine; but those I have mentioned, in addition

dition to the cases published by Dr. Fowler in the work already referred to, and by Dr. Willan in the London Medical Journal \*, are sufficient to show that it is capable of curing the most obstinate intermittents after the bark has had a fair trial and has failed of success.

*Painſwick,*

Dec. 14th, 1787.

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V. *Account of an Amputation performed with Success in the Middle of the Foot. Communicated in a Letter to Dr. Simmons, F. R. S. by Mr. T. Turner, jun. Surgeon at Yarmouth, in Norfolk.*

**A**S amputation in the middle of the foot is an operation very rarely practicable, and I do not know that there is an account of such an operation in any surgical publication, I take the liberty, Sir, of sending you the following case, to be inserted, if you think fit, in the London Medical Journal.

Mary Sloman, aged twenty-three years, had a considerable tumour upon the top of her foot. It began about two years since by a small

\* Vol. VIII. page 191.

and immoveable swelling upon the metatarsal bone that supports the second toe, near to the joint of the toe, and gradually increased in size till its dimensions were as follows, viz. from the inner to the outer side it measured four inches and a half; from the anterior to the posterior part its dimensions were the same; and from the center of the upper part of the tumour to the sole of the foot, between the great toe and the next, it measured three inches.

The tumour was of a stony hardness, without fluctuation in any part, and immoveable. It was situated upon, and firmly attached to the metatarsal bones of all the toes, the little one excepted. It adhered also to the first joint of each of those toes, and to the subjacent parts; and it had separated the great toe from that next to it considerably.

The tumour reached about half way up the metatarsus, and was very painful. The foot was entirely useless.

In consultation it was thought hard for the patient to lose her leg at the usual place below the knee, and it was agreed that as much of the foot should be saved as could be after completely removing the tumour and the parts connected with it.

The

The operation was performed, in the presence of the gentlemen who met at the consultation, on the 8th of October last, by the double incision; and in order to save as much of the integuments as possible, a small part of them, covering the tumour, was included in the first incision. As the integuments retracted very inconsiderably, it was not possible to preserve so much of them as was intended. The foot was sawn through at the superior part of the metatarsus, and the hæmorrhage was easily suppressed. The stump was completely cicatrised on the 18th of December, without the smallest exfoliation or trouble whatever.

The nature of the tumour was not known till after the operation, when it was dissected and found to be a true schirrus. The bones of the foot were not at all affected.

The idea of operating in the middle of the foot was suggested by Dr. Aikin, of this town; and he has the merit of all the advantages the woman will certainly derive from the operation's having been performed at that part.

*Yarmouth, Norfolk,*

Dec. 26th, 1787.

VI. *Case of an Exfoliation of the anterior Part of the Upper Jaw Bone. Communicated in a Letter to J. r. Simmons by Mr. William Lof- tie, Surgeon at Canterbury.*

**E**S. about twenty years since, when in Lon- don, had a tooth drawn; and, in extrac- ting it, a considerable degree of violence was used. From that time she perceived a tumour on the maxilla superior, which gradually in- creased to the size of a pigeon's egg, acquired (as she expressed herself) a stony hardness, and, on her taking cold, was attended with pain.

For this complaint she occasionally consulted different surgeons, all of whom advised her not to meddle with it, but to leave it to nature.

About the beginning of the year 1780 the tumour increased, and was attended with more pain. A considerable inflammation now spread over the whole cheek, and towards the end of March she perceived a fœtid purulent discharge from the side of the second of the molares. An emollient fomentation was applied exter- nally, and she was directed to wash her mouth frequently with warm milk. As I suspected, from the discharge at the side of the tooth, that matter might be formed in the antrum

VOL. IX. PART I. H maxillare,

maxillare, I persuaded her to let me extract the tooth, in hopes of giving a free discharge to the matter. This was done on the 5th of April, but without the wished-for effect. The discharge still continued through the gum; and frequently small pieces of a dark-coloured, clayish substance came with it. The same applications were continued; and, as she complained of a constant return of fever in the night, the bark was given.

She continued nearly in the same state till about the 24th of May, when, on catching cold, the whole side of the face was violently inflamed, and became very painful. It had an erysipelatous appearance, and was attended with a good deal of fever. The bark was now omitted, and the emollient applications continued.

On the 30th of May the tumour extended from the nose to the os temporis. The pain was very severe, and the eye on that side perfectly closed. As the appearances now led me to apprehend great danger, I desired the assistance of another surgeon. Two days afterwards a fluctuation was perceived, and on the 3d of June I made an opening on the most prominent part of the tumour, which was near the external canthus of the eye. The discharge

was



was large, and extremely foetid, and through this aperture came large pieces of the same clayish matter that was discharged through the gum. The maxilla superior was found bare, and the probe could be passed obliquely downwards to the nose. As a depending opening was to be wished for, an incision was made at this part, and a seton introduced, which we hoped might promote the discharge downwards, and assist, by its friction, in separating the diseased bone. Upon examination through this lower aperture, the bone was found bare from its connexion with the alveolar process to the os nasi, and from thence along the lower part of the orbit to the os maxillæ. The seton seeming to be of little use, it was left out, and the lower aperture was dilated upwards towards the junction of the os maxillare with the os nasi. This last incision gave great relief, but the discharge was still considerable. The bark was now given freely, and an opiate administered occasionally. In a few days the bone appeared loose, and a small piece came through the upper opening; and on the 7th of July I extracted the remainder, which appeared to be the whole of the anterior part of the maxilla superior, from its connexion with the os nasi, ex-

tending along the orbit of the eye to the os malæ, and from thence, by the alvcolar process, almost to the alæ nasi. The length of the extracted bone, from the os nasi to the os malæ, was two inches and a quarter, and its breadth near one inch and a quarter.

The removal of the bone was followed by a compact, putrid, dark-coloured mass, resembling clay, as before mentioned; and a substance of the same kind was found possessing the whole concave part of the maxilla joining to the nasal bone.

From this time the pain ceased, and the discharge gradually lessened; and before the end of July the opening near the external canthus was healed, and the tumour of the cheek had almost wholly subsided. A small discharge, however, still continued through the incision near the os nasi, and at times a little purulent matter came through the gum: but in a short time the wounds closed, and the patient has ever since remained perfectly well.

*Canterbury,*

Dec. 24th, 1787.

VII. *Account of the Effects of a large Dose of Emetic Tartar ; with Remarks. Communicated in a Letter to Samuel Foart Simmons, M. D. F. R. S. by William Blackburne, M. D. F. A. S. Member of the Royal College of Physicians, London.*

A Young lady, nineteen years of age, of a very delicate frame, and of a fair florid complexion, was seized on the 24th of June, 1787, with shivering, followed by heat, thirst, head ach, and pain in all her limbs. These symptoms had been preceded by an hæmorrhage from the uterus, which, after subsisting for some weeks, had declined about a fortnight before the above-mentioned attack of fever, and had left her in a state of great debility.

On the evening of the 24th, her friends had given to her fifteen grains of tartar emetic, instead of the same quantity of the powder of ipecacuanha. The next morning my attendance was requested, and I found her labouring under the following symptoms.—Her countenance was extremely pale ; and as well as the rest of her body, was bedewed with a cold clammy sweat. Convulsive twitchings affected successively almost every muscle of her face.

Catchings

Catchings, and subsultus tendinum, were equally obvious and frequent in her hands and arms. Her pulse was quick, weak, and tremulous; her tongue moist and clean. The antimony had induced most violent sickness, and incessant vomiting, during a great part of the preceding night, and she had voided four liquid stools in the course of the last twelve hours. Her breathing was extremely difficult, and being raised up on pillows to facilitate respiration, whenever she attempted to move her head, or bend it forwards, the motion of it exactly resembled a paralytic tremor. The same sort of tremor accompanied every effort she made to lift her hands; and occasional faintings were added to this train of formidable appearances.

As the cause of these symptoms was sufficiently striking, and the track I had to pursue seemed to be no less plain, I immediately ordered a cordial composed of Mosch, Sal c. cervi, Paregoric elixir, and Mint water in due proportions, to be exhibited at such intervals as the patient's stomach could bear. In the evening I found her considerably relieved. She had taken some little nourishment in the way of broth, as had been directed; the colour had in some degree

degree returned in her cheeks; a kindly warmth diffused itself over her whole body, and she breathed with less difficulty: but her pulse was still quick and weak, though less tremulous, and the convulsive motions and subsultus tendinum were not diminished.

As the medicine had agreed with her perfectly well, it was ordered to be continued, and, at the same time, I recommended an enema to be administered, composed of broth, with the addition of half an ounce of castor oil, and thirty drops of laudanum. The next morning she appeared to be refreshed, having had some hours sleep; all the convulsive symptoms were now much abated, but the tremor of her head and hands was still considerable.

As the use of the bark seemed now to be indicated, it was given in the draught instead of the mint water. By continuing this cordial and strengthening medicine for some time, (having also recourse to the occasional aid of Madeira) and by interposing two gentle doses of the castor oil, the patient gradually recovered her strength, and regained her usual state of health.

It must not pass unobserved, that the tremor of the head was the last remaining symptom;

tom; and that in her convalescent state this delicate sufferer languished both a longer time, and under a greater degree of feebleness, after this shock of the nervous system, than I have ever known to have happened in persons recovering from fevers, even of long duration and of the lowest kind.

It may not be unseasonable to offer one or two remarks on the case above recited.

First, It seems reasonable to conclude, that the tartar emetic, in this instance, operated as a poison; and although the efforts to expel it were violent, yet a sufficient portion of it remained in the stomach and bowels to interrupt the action of the moving fibres, and to affect the nervous system, in a manner truly alarming. On the subject of poisons, it is not very foreign to our present disquisition to observe, that certain mineral poisons, when applied to the human body, exert a mode of action peculiar to each, and differing from others. Thus, lead induces a particular kind of colic followed by palsy; arsenic acts as a caustic very soon after its reception into the stomach, and brings on, with exquisite pain, ulceration and mortification; copper occasions violent sickness and vomiting, with pain and inflammation of that organ;

mercury

mercury, in general, as well as lead, copper, and antimony, requires to be in combination with an acid solvent, before it acts specifically as a poison, and then its effects (as in the form of corrosive sublimate) are similar to those of copper: I have, however, known instances where it has been introduced into the system too abundantly in its crude divided state, and has given rise to most obstinate palsies. But the operation of antimony, in cases where it may be considered as poisonous; is different from that of all the other mineral poisons I have mentioned; for it acts without pain, and after raising certain efforts for its own expulsion, it prevents the complete effects of these by destroying the nervous energy, suspending the action of the moving fibres, and even taking life\* away insidiously, and as it were by stealth.

#### Permit

\* I can charge my recollection with two cases in which the taking of tartar emetic proved fatal. The first was that of a child who had some trifling complaint in its bowels, attended with a purging, and apparently very slight gripes. Two grains of tartar emetic were given to this child as an emetic; but no such effect was produced. Cold sweats, insensibility, tremors, and convulsions shortly succeeded the exhibition of this medicine, and notwithstanding the most speedy efforts of art, the child died in a few hours. The second

Permit me to offer one more observation with regard to poisons. Important distinctions seem to be established between vegetable and mineral poisons in their mode of affecting the human frame; and one difference consists in this, that the latter do not generally affect the intellects, while these are almost constantly disturbed by the former. The deleterious effects of night-shade, henbane, opium, &c. are sufficiently well known, and seem to confirm the observation just now offered. If this is a fact generally to be depended on, though perhaps with some exceptions, the farther investigation of it appears interesting, not only as a subject of curious speculation, but as leading to a distinct arrangement of the specific operation

instance was that of an apparently strong healthy woman, a farmer's wife, between fifty and sixty years of age, who in the year 1781 was seized with the Influenza. The symptoms resembled those of pleurisy, but were deemed so mild as not to require bleeding. In this case a blister was applied to the side, and at night four grains of tartar emetic were given to the patient. Violent vomiting and purging ensued. On the succeeding morning when I saw her, faintings in quick succession, cold sweats, a sinking and scarce perceptible pulse, with liquid stools passed insensibly, were the urgent and alarming symptoms that prevailed.

With



operation of the various poisons (whether acting upon the moving fibres or the fluids) and from thence may bring us nearer to the discovery of a certain and peculiar antidote to each.

*Spring Gardens,*

March 6, 1788.

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VIII. *Some Account of Tapioca; and of the Species of Ipecacuanba found near Rio Janeiro.*

WE have written the first of these names as we find it written by Piso, who in his work *de Indiæ utriusque re naturali et medica*\*, has given a particular account of the substance which, within these few years only, has been imported into this country under the name of *Tapioca*.

With difficulty small quantities of warm wine, brandy, &c., were swallowed, by which she was a little revived; but she sunk at last under the baneful effects of the tartar emetic, and died the next evening. She had suffered no previous evacuations, and it was only the third day of her disease.

In the *Journal de Médecine* for October, 1787, we find an account of violent effects of a large dose of emetic tartar, communicated by M. Gaterau, physician at Montauban; but he has not told us precisely what the dose was.

\* Folio, Amstelædami, 1658, p. 116.

This writer, speaking of the mandihoca, says,  
 “ Ex hoc frutice expresso manat liquor, *mani-*  
 “ *puera* Barbaris dictus, qui vasi infusus post  
 “ duas horas fundo adhærescit; ex quo . . .  
 “ fit farina quam cremorem de *Tipioca* vocant.  
 “ Ex aqua farinæ, in fundo subsidente, bolos  
 “ quoque conficiunt, *Tipiicato* dictos, optimi  
 “ saporis. Tum Gummi quoddam, seu po-  
 “ tius amyllum ex ea fit, atque eidem usui in-  
 “ servit.” This agrees with the following ac-  
 count of this substance, which, with the per-  
 mission of Sir Joseph Banks, Bart. President of  
 the Royal Society, we have extracted from a  
 letter he has lately received from Arthur Phillip,  
 Esq. Governor of New South Wales, and which  
 is dated at Rio Janeiro, August 31st, 1787.  
 “ I have had — says Governor Phillip — some  
 “ Tapioca made at this place. The water  
 “ that drains from the mandioca, or cassada,  
 “ has a very great sediment, which is a fine  
 “ white powder, and which is dried for hair  
 “ powder; or prepared in a different manner,  
 “ and made into Tapioca. This is all I can  
 “ learn on the subject, and I believe all you  
 “ wished to know.”

This was not the only inquiry relative to na-  
 tural history made by Governor Phillip during

his stay at Rio Janeiro. Among other things, he has sent to Sir Joseph Banks specimens of Ipecauanha; from which it appears, that both the grey and the brown species of it are found in the neighbourhood of that place. This piece of intelligence will be interesting to botanists; for although two species are mentioned by Piso in the work \* just now referred to, yet it seems to have been pretty generally supposed by later writers on the materia medica, that only one of them, viz. the brown, is found in Brasil.

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IX. *An Account of an Experiment lately made at Florence in a case of Hydrophobia. Communicated by Mr. J. Fabbroni, Assistant Director of the Cabinet of Natural History of his Royal Highness the Grand Duke of Tuscany, and Secretary of the Royal Academy of Agriculture at Florence, in a Letter to Sir Joseph Banks, Bart. P. R. S. and by him to Dr. Simmons.*

**D**URING the last summer we had a great number of mad dogs in the neighbourhood of this city, and in the city itself. Seve-

\* Page 231.

ral persons, who were bit by them, died of hydrophobia; and their bodies were examined after death, but without affording any information relative to the disease. The viscera were uniformly healthy, except in one subject in which the lungs were found adhering to the pleura; but, in all of them, the brain was observed to be more loaded with blood than usual.

In one case, an experiment, which the physicians here have long had an idea of making\*, and from which they were not without some hopes, was tried. It was indeed somewhat bold, but in the horrid and hopeless state to which the unhappy patients in such cases are reduced, every thing seems to be allowable; and the person on whom the experiment was tried appeared to be so near his end, that it was thought he could not possibly survive more than an hour.

In this case, a viper was applied to each of the patient's legs, and at the very instant of the bite the symptoms seemed to increase in

\* We formerly had occasion to mention, that M. de Matthiis, a Neapolitan surgeon, from the event of an experiment on a dog, had recommended the bite of the viper as a remedy in hydrophobia. See vol. v. p. 220.—EDITOR.

violence;

violence ; but this was only momentary, as he immediately became more calm and collected, gave an account of his relations, asked for something to drink, and even drank ; but died within half an hour.

This experiment did not seem to be at all conclusive either for or against ; but it occasioned so much popular clamour, that I think it will hardly be repeated here, at least on a human subject\*.

*Florence,*

Nov. 20, 1787.

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X. *An Experiment to determine the Effect of extirpating one Ovarium upon the Number of Young produced.* By John Hunter, Esq. F. R. S. — From the *Philosophical Transactions of the Royal Society of London.* Vol. lxxvii. for the Year 1787. Part II. 4to. London, 1787.

**I**N all animals of distinct sex, the females, those of the bird kind excepted, have, I believe, two ovaria, and of course the oviducts are in pairs.

\* It certainly deserves to be recorded, that such an experiment, as the one here related, has been made in the hydrophobia ; but it would seem, that at the time the vipers were applied, nothing satisfactory could be expected from this or any other experiment.—EDITOR.

By

By distinct sex, I mean when the parts destined to the purposes of generation are of two kinds, each kind appropriated to an individual of each species, distinguished by the appellation of male and female, and equally necessary to the propagation of the animal; the testicles, with their appendages, constituting the male; the ovaria, and their appendages, the female sex.

As the ovaria are the organs which, on the part of the female, furnish what is necessary towards the production of the third, or young animal; and as females appear to have a limited portion of the middle stage of life allotted for that purpose; it becomes a question, whether those organs are worn out by repeated acts of propagation; or whether there is not a natural and constitutional period to that power on their part, even if such power has never been exerted? If we consider this subject in every view, taking the human species as an example, we shall discover that circumstances, either local or constitutional, may be capable of extinguishing in the female the faculty of propagation. Thus we may observe when a woman begins to breed at an early period, as at fifteen, and has her children fast, that she seldom

dom breeds longer than the age of thirty or thirty-five; therefore we may suppose, either that the parts are then worn out, or that the breeding constitution is over. If a woman begins later, as at twenty or twenty-five, she may continue to breed to the age of forty or more; and there are, now and then, instances of women, who, not having conceived before, have had children as late in life as at fifty years or upwards. After that, few women breed, even if they should not have bred before; therefore, there must be a natural period to the power of conception. A similar stop to propagation may likewise take place in many other classes of animals, probably in the female of every class, the period varying according to circumstances; but still we are not enabled to determine, how far it depends on any particular property of the constitution, or of the ovarium alone.

As the female of most classes of animals has two ovaria, I imagined, that by removing one it might be possible to determine how far their actions were reciprocally influenced by each other, from the changes which by comparison might be observed to take place, either by the breeding period being shortened, or per-

haps, in those animals whose nature it is to bring forth more than one at a time, by the number produced at each birth being diminished.

There are two views in which this subject may be considered. The first, that the ovarium, when properly employed, may be a body determined and unalterable respecting the number of young to be produced. In that case we can readily imagine, that, when one ovarium is removed, the other may produce its determined number in two different ways; one when the remaining ovarium, not influenced by the loss of the other, will produce its allotted number, and in the same time; the other, when it is affected by the loss, yet the constitution demands the same number of young each time of breeding, as if there were still two ovaria; consequently it furnishes double the number it would have been required to supply, had both been allowed to remain, but must cease from the performance of its function in half the time. The second view of the subject is by supposing, that there is not originally any fixed number which the ovarium must produce; but that the number is increased or diminished according to circumstances; that it is rather the constitution at large that deter-  
 mins



mines the number; and that, if one ovarium is removed, the other will be called upon by the constitution to perform the operations of both; by which means the animal should produce, with one ovarium, the same number of young as would have been produced if both had remained.

With an intention to ascertain those points, as far as I could, I was led to make the following experiment; and for that purpose chose pigs in preference to any other animal, because they are easily managed, and breed perfectly well under the confinement necessary for experiments. Having selected two female ones of the same colour and size, and likewise a boar pig, all of the same farrow; after having removed one ovarium only from one of the females, and cut a slit in one of its ears, that there might be no mistake between it and the other, I had them well fed and kept warm, that there might be no impediment to their breeding; and whenever they farrowed, their pigs were taken away exactly at the same age.

About the beginning of the year 1779, they both took the boar; but the one which had been spayed earlier than the perfect female. The distance of time, however, was not great,

and they continued breeding at nearly the same times. The spayed animal continued to breed till September, 1783, when she was six years old, which was a space of more than four years. In that time she had eight farrows; but did not take the boar afterwards, and had in all seventy-six pigs. The perfect one continued breeding till December, 1785, when she was about eight years old, a period of almost six years, in which time she had thirteen farrows, and had in all one hundred and sixty-two pigs; after this time she did not breed: I kept her till November, 1786.

I have here annexed a table of the different times of each farrow, with the number of pigs produced.

Spayed Sow.		
Farrows.	Number of young.	Time.
1	6	Dec. 1779
2	8	July 1780
3	6	Jan. 1781
4	10	Aug. 1781
5	10	Mar. 1782
6	9	Sept. 1782
7	14	May 1783
8	13	Sept. 1783

November following she was put to the boar, but brought no pigs. April, 1784, she was again put to the boar, without effect, and never was observed to take the boar afterwards, although often with him. November, 1784, she was killed.

Perfect Sow.

Farrows.	Number of young.	Time.
1	9	
2	6	
3	8	
4	13	Dec. 1781
5	10	June 1782
6	16	Dec. 1782
7	13	June 1783
8	12	Oct. 1783

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87

Eleven pigs more than were produced by the spayed sow in her eight farrows.

Farrows.	Number of young.	Time.
9	12	Feb. 1784
10	16	June 1784
11	12	Dec. 1784
12	16	May 1785
13	19	Dec. 1786

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75

After which she bred no more.

The

The first eight farrows were	-	-	87
The last five farrows were	-	-	75
			<hr/>
Total	-	-	162
The number from the spayed one	-		76
			<hr/>
More than farrowed by the imperfect animal	-	-	86

It is observable, that both sows rather increased in their number each time the older they grew, although not uniformly; the difference between the first and last in both animals being considerable.

From the above table we find, that the sow with only one ovarium bred till she was six years old, from the latter end of 1779 till September, 1783, about four years, and in that time brought forth seventy-six pigs. The perfect animal bred till she was eight years of age. In the last, if conception depended on the ovaria, it was to be expected, that she would bring forth double the number at each birth; or, if she did not, that she would continue breeding for double the time. We indeed find her producing ten more than double the number of the imperfect animal, and continuing to breed much longer.

From

From a circumstance mentioned in the course of this experiment it appears, that the desire for the male continues after the power of breeding is exhausted in the female; and therefore does not altogether depend on the powers of the ovaria to propagate, although we must at the same time allow, that it may be influenced by the existence of such parts.

If these observations should be considered as depending on a single experiment, from which alone it is not justifiable to draw conclusions, I have only to add, that the difference in the number of pigs produced by each was greater than can be justly imputed to accident, and is a circumstance certainly in favour of the universality of the principle I wished to ascertain\*.

From this experiment it seems most probable, that the ovaria are from the beginning destined to produce a fixed number, beyond which they cannot go, although circumstances may tend to diminish that number; that the constitution at large has no power of giving to

\* It may be thought by some, that I should have repeated this experiment; but an annual expence of twenty pounds for ten years, and the necessary attention to make the experiment complete, will be a sufficient reason for my not having done it.

one ovarium the power of propagating equal to two; for, in the present experiment, the animal with one ovarium produced ten pigs less than half the number brought forth by the pig with both ovaria. But that the constitution has so far a power of influencing one ovarium, as to make it produce its number in a less time than would probably have been the case if both ovaria had been preserved, is evident from the above-recited experiment.



XI. *Botanical Description of the Benjamin Tree of Sumatra.* By Jonas Dryander, *M. A. Libr. R. S. and Member of the Royal Academy of Sciences at Stockholm; communicated by Sir Joseph Banks, Bart. P. R. S.*—From the *Philosophical Transactions of the Royal Society of London*, Vol. LXXVII, for the Year 1787. Part II. 4to. London, 1787.

**T**HOUGH Garcias ab Horto, Grim, and Sylvius, were acquainted with the real tree from which Benjamin or Benzoin is collected, their descriptions of it are so imperfect and insufficient for its botanical determination, that succeeding botanists have fallen  
into

into many errors concerning it; and it is remarkable, that although this drug was always imported from the East-Indies, most of the later writers on the *Materia Medica* have conceived it to be collected from a species of *Laurus*, native of Virginia, to which, from this erroneous supposition, they have given the trivial name of Benzoin. This mistake seems to have originated with Mr. Ray, who in his *Historia Plantarum*, Vol. II. p. 1845, at the end of his account of the *Arbor Benivifera* of Garcias, says: “ Ad nos scripsit D. Tancredus  
 “ Robinson Arborem resiniferam odoratam fo-  
 “ liis citrinis prædictæ haud absimilem transf-  
 “ missam fuisse e Virginia a D. Banister, ad  
 “ illustrissimum Præsulem D. Henr. Compton,  
 “ in cujus instructissimo horto culta est.—  
 “ Arbor ista Virginiana Citrii, vel Limonii fo-  
 “ liis Benzoinum fundens, in horto reveren-  
 “ tissimi Episcopi culta.”

This error was detected by Linnæus, but another was substituted by him in its place; for in his *Mantissa Plantarum Altera*, he tells us, that Benjamin is furnished by a shrub described there under the name of *Croton Benzoe*, and afterwards in the *Supplementum Plantarum*, describes again the same plant, un-

der the name of *Terminalia Benzoin*. M. Jacquin, who had been informed that this shrub was called by the French *Bienjoint*, supposes, with reason, that the similar sound of that word with *Benjoin*, the French name for Benjamin, may have occasioned this mistake\*.

Since that period Dr. Houttuyn has described the Benjamin Tree of Sumatra; but for want of good specimens, has been so unfortunate as to mistake the genus to which it belongs. It is hoped, therefore, that the following description and annexed figure †, may not be unworthy a place in the Philosophical Transactions; they are made from dried specimens procured from Sumatra by Mr. Marsden, F. R. S. at the request of Sir Joseph Banks, Bart. P. R. S. and clearly prove that this tree agrees in the parts of fructification with the *Styrax* of Linnæus.

STYRAX *Benzoin*, foliis oblongis acuminatis  
subtus tomentosis, racemis compositis longi-  
tudine foliorum.

Benjui. *Garcias ab Horto in Clusii Exoticis*, p. 155.

\* Hort. Vindob. Vol. III. p. 51.

† For the figure we must refer our readers to the Philosophical Transactions.—EDITOR.



- Arbor Benzoini. *Grim* in *Ephemer. Acad. Nat. Curios. Dec. 2. Ann. I. p. 370. fig. 31.* *Sylvius* in *Valentini Historia Simplicium, p. 487.*
- Benzuin. *Radermacher* in *Aët. Societ. Bataviae, vol. III. p. 44.*
- Benjamin or Benzoin. *Marsden's Hist. of Sumatra, p. 123.*
- Laurus Benzoin. *Houttuyn* in *Aët. Harlem. vol. XXI. p. 265. tab. 7.*
- Habitat* in Sumatra. 5

## D E S C R I P T I O.

*Rami* teretes, tomentosi.

*Folia* alterna, petiolata, oblonga, integerrima, acuminata, venosa, supra glabra, subtus tomentosa, palmaria. *Petioli* teretes, striati, canaliculati, tomentosi, brevissimi.

*Racemi* axillares, compositi, longitudine fere foliorum. *Pedunculi communes* tomentosi; *partiales* alterni, patentes, tomentosi. *Pedicelli* brevissimi. *Flores* secundi.

*Calyx* campanulatus, obsolete quinquedentatus, extus tomentosus, linea longior.

*Petala* quinque, (basi forte connata) linearia, obtusa, extus tomento tenuissimo cinerea, calyce quadruplo longiora.

L. 2

Filamenta

*Filamenta* decem, receptaculo inserta, petalis paulo breviora, inferne connata in cylindrum longitudine calycis, superne infra antheras ciliata. *Antheræ* lineares, filamentis longitudinaliter adnatæ, iisque dimidio breviores.

*Germen* superum, ovatum, tomentosum. *Stylus* filiformis, staminibus longior. *Stigma* simplex.

## CATALOGUE OF BOOKS.

1. **P** RINCIPIA Botanica : or a Concise and easy Introduction to the sexual Botany of Linnæus. With the Genera ; their mode of growth (as tree, shrub, or herb ; ) the number of species to each genus ; where principally native ; and the number indigenous to the British isles : arranged in columns under each class and order ; and digested alphabetically under several generical distinctions. By which means most plants may be thus far ascertained. Together with three Indexes. 1. Of the Linnæan genera accented, with the British names. 2. Of such trivial names as were the genera of old authors. 3. Of the British names, with the Linnæan genera ; to which are added many

many of the specific names; also a table of several vegetable drugs not in the Indexes. 8vo. Newark, 1787.

2. Essays on the Hepatitis, and Spasmodic Affections in India, founded on observations made whilst on service with his Majesty's troops in different parts of that country. By *Thomas Girdlestone*, M. D. 8vo. *Murray*, London, 1787.

3. First lines of the Theory and Practice of the Venereal Disease. By *William Nisbet*, Fellow of the Royal College of Surgeons of Edinburgh. 8vo. Edinburgh, 1787.

4. Specimen Artis Obstetricariæ: Being a Syllabus, or general Heads of a Course of Lectures on the Theory and Practice of Midwifery, and Diseases incident to Women and Children. By *John Leake*, M. D. Member of the Royal College of Physicians, and Physician to the Westminster Lying-in Hospital. 8vo: *Murray*, London, 1787.

5. The Prognostics and Prorrhetics of Hippocrates, translated from the original Greek, with large Annotations, critical and explanatory; to which is prefixed a short Account of the Life of Hippocrates. By *John Moffat*, M. D. 3vo. *Elliott*, London, 1787.

6. Concise

6. Concise Observations on the Nature of Common Food, so far as it tends to promote or injure health; with remarks on water, bread, meat, cheese, butter, milk, wine, punch, beer, coffee, tea, sugar, &c. By a gentleman of the Faculty. 8vo. *Wilkie*, London, 1787.

7. The Case of a Boy, who had been mistaken for a Girl; with three anatomical views of the parts before and after the operation and cure. By *Thomas Brand*, Surgeon. 4to. *Nicol*, London, 1787.

8. A Treatise on Elementary Air. By *Hamilton Kelfe*, M.D. 8vo. London, 1787.

9. A Synopsis of a Course of Lectures on Anatomy and Physiology. By *Busick Harwood*, M. B. F. R. S. Professor of Anatomy in the University of Cambridge. 8vo. *Cadell*, London, 1787.

10. Narrative of the Efficacy of the Bath Waters in various kinds of paralytic disorders, admitted into the Bath Hospital from the end of 1775 to the end of 1785, with particular relations of fifty-two of their cases. Published by order of the Committee, at the expence and for the benefit of the Hospital. 8vo. *Crutwell*, Bath, 1787.

11. Obser-

11. Observations on Medical Electricity; containing a Synopsis of all the diseases in which Electricity has been recommended or applied with success; likewise pointing out a new and more efficacious method of applying this remedy by electric vibrations. By *Francis Lowndes*. 8vo. London, 1787.

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fi son Systeme est le plus solidement etabli, si l'auteur a été fondé a rejeter tontes les parties de la fleur, et forcé de preferer les organes sexuels; 3°. on designe les ouvrages elementaires et necessaires, avec la meilleure maniere de s'en servir; 4°. on donne une explication de plusieurs mots techniques: par M. *Gouan*, Conseiller, Medecin du Roi, Professeur Royal de Medecine au Ludovicée de Montpellier, associé ordinaire de la Soeieté Royale des Sciences de cette ville, associé honoraire de celle de Florence, &c. 8vo. Montpellier, 1787.

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THE  
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MEDICAL JOURNAL,  
FOR THE YEAR 1788,  
PART THE SECOND.





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T H E

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I. *An Account of three Cases, viz. 1. of the Extraction and Depression of the Cataract in the same Patient; 2. of an encysted Hydrocele of the Tunica communis of the Spermatic Cord communicating with the Tunica Vaginalis Testis; and 3. of an Amputation below the Knee, the Event of which shews that the Advantages of the Union by the first Intention, after such an Operation, are as easily obtained in the Leg as in the Thigh: by Mr. Richard Sparrow, one of the Surgeons of the Charitable Infirmary at Dublin. Communicated in a Letter to William Lister, M. D. Physician in London, and by him to Dr. Simmons.*

C A S E I.

*Extraction and Depression of the Cataract in the same Patient.*

**A** BIGAIL CREMOR, aged fifty years, came to the Charitable Infirmary in Dublin, with a cataract formed in each eye. That

in the right eye was of four months, and that in the left of three years standing. During their progress she had been subject, at times, to pain in her head; and vision was now so totally lost, that it was only a very strong light she could distinguish from darkness: but the power of contraction and dilatation of the pupils was perfect.

The appearances being exactly similar in both eyes, I determined to try the comparative merits of couching and extraction in a case which appeared to be so fair for the purpose. Accordingly, on the 25th of October, 1787, I extracted the lens from the left, and depressed it in the right eye. In the latter it adhered to the iris, so as to alter the shape of the pupil whilst under the needle, and require repeated pressure to prevent it from rising again. Both the operations were performed fairly, and without accident; but the patient complained more of the extraction than of the depression. The eyes were covered with bits of fine lint spread with saturnine ointment, and over these was placed a compress dipped in weak vegeto-mineral water. Blood was drawn from the jugular, and opiates, in small doses, were administered internally; an antiphlogistic plan of treatment was strictly followed;

lowed; and on the fifth day the bandage becoming loose on the couched eye, I opened it. There was very little inflammation, and the patient could see much light with it. As she remained so free from pain, on the eighth day I examined the eye from which the lens had been extracted, and found the wound of the cornea united; the pupil much dilated, and irregular; the eye nearly full, with a good deal of inflammation, and unable to bear the light.

On the eleventh day the inflammation was totally gone from the couched eye, and she could see objects with it. The inflammation of the other eye was also abated; the pupil, however, was still dilated, though with less irregularity, and she could see light and objects with it, but not distinctly.

On the twenty-second day, the couched eye was evidently getting stronger, and there was only a little inflammation in the other; but the pupil of this eye was still dilated. She was now directed to wash her eyes with cold water, and continued to mend till December 4th (the fortieth day after the operation) when she was discharged from the hospital with her eyes in the following state, viz.—The pupil of the couched eye smaller than natural, and with very little  
 little

little power of contraction, or dilatation ; the vision of it imperfect, having the sensation of motes constantly flying before it, so as to impede, in some degree, the sight of the other, although the pupil was perfectly clear : the pupil of the other eye larger than natural, somewhat irregular and with little contractile power ; the cicatrix of the cornea a little opaque ; but the vision so good, as to enable her to know all her former acquaintances, and to do many of the ordinary offices of life.

At the beginning of February, 1788, finding, for the first time since the operation, a slight return of the pain of her head, I judged it proper on account of this circumstance, as well as of her particular time of life, to make a pea issue in her arm which she thinks has done her service ; and this day, March 2d, 1788, her eyes and vision are as follows :—The pupil of the couched eye is clear, and has recovered in a great degree its natural size, contraction, and dilatation ; the vision is better, but still imperfect, having generally a sense of dust (as she says) flying before it, but upon the whole much mended ; the pupil of the other eye is still larger than natural, but its irregularity is scarcely perceptible ; the opacity of the cicatrix of the cornea is nearly gone,  
and

and the vision so perfect as to enable her to tell the hour on an eight-day clock without a glass, and in short, to do, with ease, all the ordinary offices of life.

That extraction has succeeded in this case, beyond couching, is very evident; but whether this is to be attributed to the operation, or to the different degree of affection of the optic nerve, I shall not pretend to say; contenting myself with having given a faithful account of the case: it may, however, be observed, that in the couched eye vision had been lost only four months, whilst, in the other, the patient had been deprived of it upwards of three years.

## C A S E II.

*An encysted Hydrocele of the Tunica Communis of the spermatic Chord, communicating with the Tunica Vaginalis Testis.*

**S**AMUEL MONK, a healthy looking man, aged thirty-six years, came to the Charitable Infirmary, on the 5th day of January, 1788, complaining of a tumour that extended from the groin to the bottom of the scrotum, a little below the middle of which there appeared an indentation, marking, as it were, the com-

mencement of tunica vaginalis testis. Upon examination, a fluid was clearly to be felt in the tunica communis of the chord, and the testicle seemed enlarged; but whether surrounded by a fluid, or not, was doubtful.

The account the man gave of his case was, that about a year before this, by a fall, he had hurt the scrotum and testicle considerably; that the testicle had continued to be swelled, but with no pain, till the beginning of November last, when he was thrown from a horse, the immediate effect of which was a swelling, in the upper part of the scrotum, that had continued to increase, with much pain at times, up to the groin.

As there was evidently a fluid in the upper part of the tumour, while the presence of any in the tunica vaginalis testis was very doubtful, I determined to begin my intended operation above, and to act afterwards as circumstances might point out. I, therefore, made an incision into the upper part of the tumour on the chord, and discharged some ounces of a clear fluid, which appeared to have been contained in one of the cells of the tunica communis. The tumour at the bottom of the scrotum now appearing to be caused by the testicle only, somewhat enlarged, but not hard, or unequal, it



was, of course, left as it was ; and having taken away a portion of the edges of the cyst, I brought the lips of the wound into contact by future, in order to procure an union by the first intention : but from the division of some branches of an artery of the skin during the operation, an hemorrhage soon came on. I opened the ligatures to try to discover the vessels from which it proceeded, but they had retracted within the cellular membrane. Upon pressing the testicle, accidentally, I observed a small quantity of a clear fluid coming through the wound. This led me to examine more attentively, and I discovered, at the posterior, inferior part of the cyst, an opening, large enough to admit the end of my little finger, and communicating with the tunica vaginalis testis. I now distinct'y felt the testicle, which, as I just now observed, was enlarged, but neither hard, nor unequal ; I therefore pressed out some coagulated blood, which had insinuated itself into the cavity, and to stop the bleeding, applied lint dipped in oil of turpentine : but some hours elapsed before the hemorrhage could be restrained, notwithstanding this application was assisted by considerable pressure on the part.

On the third day, when I removed the dressings, the wound appeared foul, and the scrotum was much swelled, and tense, though with little pain. I now directed the scrotum to be covered with a soft poultice, and an anodyne to be administered at night. By this treatment, in ten days, the scrotum was reduced to its natural size, and the testicle was neither painful nor very hard. Two grains of calomel were now ordered to be given every night; and, on the 5th of February, the wound (the edges of which had been brought nearly into contact by means of sticking plaster) being perfectly healed, the patient was dismissed from the hospital. The testicle was then diminished in size, and much softer.

What makes this case of hydrocele singular, is the communication between the cyst, and the tunica vaginalis testis; and that with such a communication existing, the fluid, by its own gravity, should not have been collected in greater quantity in the latter. This is not easily to be accounted for. Possibly it may be explained by supposing the cavity of the tunica vaginalis to have been nearly filled by the enlarged testicle, and that the communication had been made so short a time previous to the operation, that the pressure

pressure of the fluid had not been long enough continued to distend the tunica vaginalis sufficiently to enable it to contain a greater quantity.

### C A S E III.

*An Amputation below the Knee, the Event of which shows that the Advantages of Union by the first Intention, after such an Operation, are as easily obtained in the Leg as in the Thigh.*

**M**ARY DANIEL, aged twelve years, applied, at the Charitable Infirmary, for relief for an extensive caries of the bones of the leg and foot, with erosion of the ligaments of the ankle joint. Hæctic symptoms, increasing rapidly, left her no resource but in amputation. Accordingly, on the 26th of April, 1787, I performed the operation below the knee, beginning my incision through the skin (which was drawn up by an assistant), lower than usual, and then, cutting obliquely upwards through the muscles, I had a complete covering for the face of the stump. Having taken up the arteries, two in number, with a tenaculum and ligature, I brought the skin and muscles together on the face of the stump, in a line from the tibia backwards, and secured them by slips of adhesive plaster. On

On the 30th of April, I removed the plasters, and found the union complete, except where the ligatures protruded. One of these came away that day, and the other, on the day following.

On the 3d of May, the discharge was very small; and, on the 9th, the wound was completely healed, excepting only a small sinus opposite the end of the tibia, which discharged about a tea-spoonful of matter daily.

On the 17th, this sinus was contracted, and appeared to adhere to the end of the tibia. All discharge from it had ceased, and the stump being perfectly cicatrized, the patient was discharged from the hospital on that day (May the 17th) being the 21st from the operation. Her health was then mended in every respect.

This case is given to show that the very great advantages of union by the first intention after amputation, are as easily obtained when this method is applied to the leg as to the thigh; which is contrary (I believe) to the general opinion.

*Dublin,*

March 2d, 1788.

II. *An Account of a painful Swelling of the Perinaeum, which took place immediately after delivery, and terminated in Sphacelus. Communicated in a Letter to Dr. Simmons by Mr. Thomas Reeve, Surgeon at Boterdale in Suffolk.*

ON the 13th of September, 1787, I was sent for, in the afternoon, to a female patient about thirty-two years of age, who had been that morning taken in labour of her first child. Till ten o'clock in the evening the pains were slight, with considerable intervals between them, but they then increased both in strength and frequency. The head was now low down in the pelvis, and the child gradually advancing, when, in the last pain but one, the patient complained of an odd sensation, unconnected with labour pains, which produced hysteric symptoms, that continued to distress her a considerable time. The next pain brought forth the child without any assistance, and about five minutes afterwards, the placenta was expelled without difficulty.

Hitherto nothing very alarming had made its appearance, but now she was attacked with excruciating pain *in perinaeo*, different from what  
 she

ſhe had ever deſcribed during labour, as it was much more acute ; and it continued to increaſe till a ſyncope came on. As ſoon as ſhe recovered, ſhe complained of a hard tumour in the perinæum ; which tumour, in a very ſhort time, ſpread ſo rapidly, that it occupied the whole of the labium pudendi finiſtrum, and extended to the opening in Poupart's ligament.

In the morning of the 14th, finding the ſwelling very tenſe, with the integuments ready to burſt, I applied to it the vegeto-mineral water on compreffes of ſoft linen for the firſt twelve hours, hoping that cold applications would produce a reabſorption of the extravafated fluids, and diſcuſs the ſwelling, which now was equal in magnitude to the body of a full grown fœtus.

On the 15th, the tumour appeared much diſcoloured, with a livor on many parts of it ; and, on the 16th, notwithstanding every effort to obviate it, a complete ſphacelus ſeized the whole of the ſwollen parts : and now ſymptoms of irritation, uſually attendant on gangrene, ran ſo high, that her life ſeemed to be in very imminent danger. The bark was given immediately in ſubſtance, in as large doſes, and as often repeated, as the ſtomach could bear. Warm antiſeptic fomentations and poultices were applied to  
the

the parts three or four times in a day, and the room kept well ventilated, as the smell from the fore was almost intolerable.

On the 18th, a separation of the dead from the living parts began to take place, with a copious discharge of pus and coagulated blood. From this time she continued gradually to recover; and nature, assisted by tonics and a nutritious diet, produced a regeneration of the parts destroyed, so that in three weeks she was perfectly well.

From the commencement of the swelling, she laboured under a suppression of urine, which obliged me to introduce the catheter whenever an over-distention of the bladder produced pain and uneasiness.

*Query.* Would punctures, made into the tumour with the point of a lancet, have prevented that destruction of the soft parts consequent to the putrefaction of the extravasated blood?

*Boterdale,*

April 22, 1788.

III. *Hints respecting the Hydrocephalus internus; communicated in a Letter to Dr. Simmons by John Warren, M. D. Physician at Taunton, honorary Member of the Medical Society at Edinburgh, corresponding Member of the Royal Medical Society at Paris, and an Associate of the Academies at Bologna, Florence, and Rome.*

**I**T has frequently occurred to me, as a melancholy reflection, that many of the new and active remedies introduced into the practice of physic, have, after a time, by the improper and indiscriminate use of them, not only lost the reputation they had acquired in the hands of their inventors, but have been productive of so much mischief that it might possibly have been as well for society at large, had such remedies never been discovered.

I have been particularly induced to make this observation from having frequently witnessed the injurious effects of mercury, when administered as a remedy for a supposed hydrocephalus internus, which has existed only in the imagination of the practitioner.

The discovery of any means for the cure of so fatal a disease certainly merits the highest applause; and if the case described by the late



Dr. Dobson, in the sixth volume of the London Medical Observations and Inquiries, was truly a case of this kind, he is entitled to the warmest thanks of the public for the sagacity he has displayed in investigating the powerful effects of mercury, as a remedy for a complaint, which, till that period, seems to have been almost uniformly fatal.

The late very worthy and respectable Dr. Whytt candidly confessed, that of twenty cases which had fallen under his observation, and in which the characteristic symptoms of this disorder were present, he had not been fortunate enough to cure a single patient. Dr. Percival, Dr. Haygarth, and some other very respectable physicians have, however, borne testimony to the success of Dr. Dobson's mode of treatment, and the testimony of such men is not to be doubted, but with the greatest diffidence. It would afford me infinite satisfaction to be able to give my suffrage also to the salutary effects of this plan of cure, but I must candidly acknowledge that I have no reason to speak favorably of it from my own experience. In ten cases of this deplorable malady which have fallen under my care, and in which the mercurial treatment was pursued, the event proved fatal. This want of

success might, possibly, be attributed to the mercury having, in each instance, failed of producing the effect of salivation, which by some may probably be deemed essential to its beneficial operation. That it should uniformly have failed of producing ptyalism, has been matter of some surprize to me; particularly as the mercurial course was used in the most liberal manner with all my patients; in many cases for several days together; to the amount of three or four grains of calomel every eight hours, without any purgative effect; besides a friction of a drachm of unguentum mercuriale fortius morning and evening; and this in children of six, eight, or ten, years of age. Blistering, it is true, was at the same time employed with the greatest freedom in all the cases; and bleeding was likewise used in several of them, at the commencement of the disease, for reasons which will hereafter be assigned; but I do not conceive, these means could have operated in counteracting any salutary effects which might otherwise have been expected from the mercurial course. In many of the cases above alluded to, I had, after death, an opportunity of examining the state of the brain, when the cause of the fatal termination was ascertained, beyond a doubt, to be water lodged

lodged, in greater or smaller quantity, in the ventricles of that organ.

This general failure of success on my part, has almost staggered my faith in the remedy itself. At any rate it has led me to suppose, that the disease has not really existed in all those cases, which are said to have been cured by the use of mercury. I am the more strengthened in this conclusion from observing in the account of many of those cases, that a salivation was very easily excited; whereas from what has been above advanced, it would appear that this effect of mercury is, at any rate, with the greatest difficulty obtained, even when that remedy is employed in enormous quantities. Nor can this be altogether wondered at, when we reflect on the general torpor and inertia that prevail universally in the system in these cases; and which evidently appear from the slowness of the pulse, the remarkably tardy state of the bowels, and the long retention of urine to which such patients are liable.

But again, if mercury be so singularly beneficial in this disease, as many of its abettors would induce us to suppose, it would appear that I have been peculiarly unfortunate in my practice; as in the account of many of the cases published,

published, we are told that it is not always necessary to the cure, that the mercurial treatment should be pushed to the length of salivation, for it has been frequently found sufficient only to saturate the system with it.

If this be true, that simply saturating the system with mercury is sufficient to effect a cure, Dr. Dobson's theory of its action must be without foundation. For he says he was first induced to make a trial of it, from an idea "that mercurials so far urged as to enter into the course of the circulation, and affect the salivary glands, might possibly reach the system of absorbents in the ventricles of the brain, and thus remove the extravasated fluid."

Although I can by no means imagine it likely that the gentlemen already mentioned, as well as some other eminent physicians, who have expressly written on this subject, would readily impose on themselves, in believing they had effected cures of a disease which really never existed; yet I am by no means singular in my supposition, that practitioners at large have frequently erred in this respect; and I know some, who have acquired no inconsiderable degree of credit by offering to the public such spurious accounts of cures performed by them. It is, however,

however, by no means my intention to insinuate here, that such persons have designedly been guilty of an imposition; their only error has been in deceiving themselves, by imagining they had been more successful than their neighbours; when they have cured some other distemper which they had mistaken for the hydrocephalus internus. Indeed it is not much to be wondered at, that practitioners who are but little conversant with the disease, should so easily err in this respect, as so many of the symptoms that accompany a dropsey of the brain are frequently attendant on worm cases, dentition, and other irritating causes, that it is difficult to fix on any which can particularly characterise it.

In two cases that have fallen under my observation every symptom of the hydrocephalus internus was prevalent; but on dissection the following phenomena presented themselves. On opening the head of one of the patients, an effusion of red blood to the quantity of nearly two ounces was found lodged on the pia mater immediately under the temporal bone; and in the other, a steatomatous tumor of the size of a chestnut was discovered in the body of the brain. No collection of water appeared in either case. In both these children even the symptom of strabismus

strabismus \* or squinting, which has been heretofore held pathognomonic of the hydrocephalus internus, took place.

But such mistakes as the following are altogether inexcusable, and it is from an apprehension that numberless similar ones have already happened, and may in future occur, that I have principally been induced to turn my thoughts to the subject of the present paper.

It is not many years since I was requested to visit a gentleman who had been reduced to a state of extreme danger in consequence of a salivation excited and kept up for

\* I am thoroughly persuaded that the strabismus which the ancients considered as a principal pathognomonic symptom of this disease by no means merits that appellation, as it has never occurred to me earlier than two or three days before the death of the patient, and in other grievous affections of the brain, the same symptom has been observed to take place before that time. It has been alledged indeed, by many respectable physicians that the ancients were in a great measure ignorant of this disease, at least of that state of it depending on a surcharge of ferous fluids in the ventricles of the brain; and this idea, I suppose, must have arisen from Celsus taking no notice of it, and from Galen mentioning it in such a style, as if he knew nothing concerning it; but that Hippocrates was perfectly acquainted with it, appears, I think, clearly from the following

for seven weeks together, to carry off, as his apothecary termed it, a ferous effusion on his brain; when, in fact, his disease was no other than a hemicranium, which was afterwards cured by the Peruvian bark and Valerian.

A young lady also of my acquaintance was through a simular mistake reduced to the last extremity, by a long and severe course of mercury administered, under an idea, that her case was hydrocephalous; when in fact it was of the kind we denominate *nervous*, attended with a

lowing enumeration of symptoms, in his treatise on diseases:

"Ἦν ὕδωρ ἐπὶ τῷ ἐγκεφάλῳ γεινται, ὄδυνη ὀξείη ἴσχει διὰ τοῦ ἐρίγματος καὶ τῶν κροτάφων ἔνιοτε ἄλλη. καὶ ρίγος καὶ πυρετός ἄλλοτε καὶ ἄλλοτε. καὶ τὰς χώρας τῶν ὀφθαλμῶν ἀλγείει καὶ ἀμβλυώσσει. καὶ ἡ κόρη σχίζεται καὶ δοκίει ἐκ τοῦ ἑνὸς δύο ὄραϊ. καὶ ἦν ἀναστῆ, σκοτοδιή μιν λαμβάνει. καὶ τὸν ἀνεμον εὐκ ἀνεχεται, οὐδὲ τὸν ἥλιον καὶ τὰ ἄτα τέτριγε. καὶ τῷ ψόφῳ ἀχθεταὶ ἀκῶων. καὶ ἐμίει σίελα καὶ λάπην, ἔνιοτε δὲ καὶ τὰ σιτία. i. e. Aqua, si in cerebro suborta fuerit, dolor acutus sineiput & tempora, interdumque alias capitis partes, detinet, subindeque rigor & febris; oculorum regiones dolor occupat; iique caligant, pupilla scinditur, & ex uno, duo sibi cernere homines videntur, & si quis surrexerit, ipsum tenebræprehendunt, neque ventum, neque solem sustinet, aures tinniunt, salivam & pituitam vomitione refundit, quandoque vero etiam cibos.—HIPPOC. de Morb. Lib. II. Sect. V.

violent periodic head-ach, which was afterwards remedied by an antispasmodic and tonic course.

But the tragic termination of the following case is such as seriously to interest the feelings of humanity.

A young gentleman, about three years and a half old, and of a delicate constitution, was attacked in the month of September with pains in his stomach and bowels, and slight symptoms of fever; but as he was capable of amusing himself, and of being amused, little attention was paid to his complaints for the first six or seven days. About this time the pains in his bowels became more urgent, and he had frequently slimy and green evacuations by stool. Severe efforts to vomit now likewise often took place; his fever increased considerably; he complained much of head-ach, was drowsy, and withal extremely restless. On the evening of the ninth day of the disease, when the little patient was labouring under the above symptoms, the family apothecary (since dead) was requested to attend. As the child was restless, nothing was thought to be more likely to afford relief than a draught containing six drops of liquid laudanum and ten grains of cordial confection. This medicine was accordingly administered, but the

next



next morning every symptom was exasperated. The child had had no stool during the night, and the vomiting had ceased (both of which evacuations had before constantly given relief), and the patient from being drowsy was become comatose. The disease was now pronounced to be a dropsy of the brain, and the anxious parents were informed that a mercurial course was alone capable of affording a possibility of relief. Half a drachm of the strong mercurial ointment was immediately rubbed on each leg; but, most unfortunately for the child, no calomel was given internally, from an apprehension of its irritating effects on the bowels. The friction was repeated in the evening to the same amount as before, and twice the day following. On the morning of the third day, a slight ptyalism made its appearance, but with no alleviation of the symptoms, which had been rapidly getting worse during the whole course. It was hoped a palliation of them would take place on the salivation being increased; recourse was accordingly had to another friction; the ptyalism now became profuse, and on the day following, so great was the irritation produced, that the child was seized with universal spasms, which continuing with unabated violence for several hours, at length closed the mournful scene.

The head was opened, and to the astonishment of the attendants, no water was discovered; but on examining the first passages, they were found replete with viscid matter, and with crudities blended with an unusual quantity of bile. They were likewise in many places in a state of inflammation.

This child's complaint was simply a fever of the season of the remittent kind, depending on a diseased state of the first passages; and if these had been properly evacuated, in all probability, a cure would have been easily and speedily completed: nor is it at all unlikely, had a few doses of calomel been administered, on a presumption of the case being hydrocephalus, that the patient might have recovered, and the mercurial course have obtained the credit of curing a disease which is most commonly irremediable.

Do not such egregious errors, as these, call aloud for animadversion; and are they not proofs of the remark I advanced, at the commencement of this paper, of the injurious effects of active medicines, when in the hands of those who do not possess sufficient judgment to discriminate diseases?

It is to be lamented that such men, before they

they venture to administer remedies for a supposed hydrocephalus internus, do not make themselves acquainted with the nature, symptoms and progress of the disease; an account of which, being accurately delineated, I shall here transcribe, for their information, from the late Dr. Fothergill's paper on this subject in the *Medical Observations and Inquiries*\*.

“ In most of those whom I have seen in this  
 “ distemper, a pain in some part or other  
 “ below the head was the first thing they com-  
 “ plained of; most commonly about the nape  
 “ of the neck and shoulders, often in the legs,  
 “ sometimes in the arms, but more rarely.

“ This pain was not always alike acute, nor  
 “ always fixed to one place; sometimes it  
 “ seemed not to affect any of the limbs. In  
 “ these cases, the head and stomach seemed to  
 “ be more disordered; and indeed were always  
 “ disordered more or less from the beginning,  
 “ as far as I could learn. When the pain  
 “ was in the limbs, the sickness or head-ach  
 “ was less; when the head became the seat of  
 “ complaint, the pain in the limbs was seldom  
 “ or ever mentioned: some had very violent  
 “ sicknesses, and violent head-achs alternately.

\* Vol. IV. Page 45.

“ From

“ From being perfectly well and sportive,  
 “ some were seized with these pains in the  
 “ limbs, or with sickness, or head-ach slightly,  
 “ in a few hours, commonly, after dinner.  
 “ Some have been observed to droop a few days  
 “ before they complained of any part being  
 “ much indisposed. In this manner they con-  
 “ tinued three, four, or five days, more or  
 “ less, as the children were healthy and vigo-  
 “ rous, when the distemper begins to show it-  
 “ self in an alarming manner.

“ They then commonly complain of a most  
 “ acute pain in the head, deep seated, and ex-  
 “ tending across the forehead from temple to  
 “ temple. They are generally very sick be-  
 “ tween whiles, crying out in the most affect-  
 “ ing manner, *Oh, my head! Oh, I am sick!*  
 “ alternately, and with short intervals :  
 “ dosing a little in these intervals, breathing  
 “ irregularly, and sighing much while awake.  
 “ Sometimes they only seem to breathe in sighs  
 “ for some minutes together.

“ The pulse, from being regular as in health,  
 “ as the disease creeps on, becomes irregular ;  
 “ slower, for the most part, at first than it  
 “ ought to be ; it grows still slower as the pain  
 “ increases, gradually likewise irregular, the  
 “ strokes

“ strokes being made both with unequal force  
 “ and in unequal times. The limbs, for the  
 “ most part, are temperate, in respect to heat,  
 “ after the first access, which is often attended  
 “ with feverish heats, especially towards eve-  
 “ ning and forepart of the night, and till with-  
 “ in a day or two of their dissolution; the  
 “ pulse then becomes extremely quick, the  
 “ breathing deep, irregular, and laborious,  
 “ the heat excessive and more general. The  
 “ head is always hot from the first attack, and  
 “ the *præcordia* likewise.

“ Almost every symptom that is known to  
 “ attend an irritating cause existing in the  
 “ brain, appears in its turn; first, pain in the  
 “ limbs, sickness, and head-ach.

“ Short disturbed sleeps, startings, irregu-  
 “ lar pulse, watchfulness, and the pupils of  
 “ the eyes dilated.

“ They are unwilling to be disturbed for any  
 “ purpose, are averse to light, take things  
 “ greedily, and cannot bear any posture but  
 “ that of lying horizontally. They attend less  
 “ to objects; when asleep, great part of the  
 “ whites of the eyes are seen, and are undis-  
 “ turbed by any thing but moving them.  
 “ Their urine comes away insensibly, and their  
 “ stools

“ stools likewise. They often scream out most  
 “ piercingly, but complain of nothing. One  
 “ or both hands are most commonly about  
 “ their heads. At length the eyelids become  
 “ paralytic, the *iris* immoveable : it gives them  
 “ no apparent uneasiness, if one raises the  
 “ eyelids with one’s finger two or three days  
 “ before they die. The heat of the head and  
 “ trunk become excessive ; a great heat and  
 “ sweat spreads over the whole body, respira-  
 “ tion is altogether suspirious, the pulse trem-  
 “ bling, and quick beyond the possibility of  
 “ counting, and the patient goes off gradually  
 “ as the strength fails ; sometimes a spasm  
 “ finishes the catastrophe.”

To have rendered the enumeration of symp-  
 toms complete, Dr. Fothergill should have taken  
 notice of that state of the pulse which frequently  
 occurs at the beginning of the complaint, indi-  
 cating an inflammatory diathesis, perhaps pre-  
 sent in the head, and of course the use of phlebo-  
 tomy. It is observed by Dr. Fothergill in the  
 above recital of symptoms, that the pains in the  
 limbs, incessant head-ach and sickness, seem to  
 be the most certain intimations of danger. These  
 happen in other diseases of children, but neither  
 so uniformly nor so lastingly. Another circum-  
 stance,

stance, he says, is likewise familiar, if not peculiar to this disease; for he never recollects one instance in which the patient was not costive, and in which, likewise, it was not without singular difficulty that stools were procured.

The disease also, as Dr. Whytt has observed, may, in general, with propriety be divided into three stages, principally denoted by the variations of the pulse.

In the first stage, on the accession of the complaint, in children of tolerably firm constitutions, the pulse is regular and natural; but in the course of a few days it becomes full, strong and quick, sometimes rising to 140 beats in a minute.

The second stage commences with a change of the pulse from a quick to a slow, irregular one; it at this time also loses its strength and fulness, and its fall is from 120, 130 or 140 beats in a minute, to the natural standard, and, frequently, much below it.

In the third stage, the pulse again rises considerably, and sometimes very suddenly; thus from 65 I have seen it rise to 90, 100, and from 100 to 130 or 140; and a little before death, I have known it amount to 200 beats, or upwards, in a minute.

As it was observed above that the symptoms of this disease are so similar to those frequently excited by worms; it will, in all instances, be prudent, on the first suspicion of its approach, immediately to have recourse to some mercurial purgative, which may probably be an effectual means of alleviating the symptoms; should they originate from worms or other irritating causes in the primæ viæ; and can do no injury should the primary affection be seated in the brain.

Although it was heretofore doubted, and still may be, whether a cure of the hydrocephalus internus can ever be expected, in consequence of no lymphatic vessels having been discovered in the brain, yet I see no reason for such an opinion, independent of the cures of it which are said lately to have been performed. It is true that no lymphatic vessels have, as yet, been certainly discovered in this organ; but there can be little doubt that an absorption really takes place there, and if not performed by the common lymphatics, it is probable that the extremities of the red veins may answer the same purpose.

Independent then of any immediate communication between the ventricles of the brain and



the salivary glands, agreeably to Dr. Dobson's theory, may not the reputed beneficial effects of mercury, in cases of hydrocephalus, be accounted for from its stimulating properties; since we know that medicines of this class are the most effectual of any for exciting absorption. In this point of view would not the frequent use of gentle emetics (for emetics are known to be highly salutary in promoting absorption from cavities), be a probable means of affording relief? They would certainly be much safer than mercury, their effects being only temporary.

It has been supposed, by Dr. Whytt, that this disease is frequently forming for many months, previously to its exciting any degree of attention, and that afterwards it may go on for many weeks before it comes to its fatal termination. Dr. Fothergill, on the contrary, informs us, that, when it has once taken place, it makes a rapid progress, and that he has seldom been able to trace it above three weeks from its commencement, to the tragic event.

My own experience inclines me to subscribe to the former of these opinions; and I have observed, that in children of a puny and delicate

constitution, the disorder is generally much slower and less violent in its approach than in those of firmer and more robust habits, although the unhappy victims of it have commonly been children of the rudest health, and of the most active and lively dispositions.

This fact, simply stated as such, would appear very much to countenance the ideas of the ingenious Drs. Withering and Quin as to the cause of the disease, which in their opinion originates from inflammation, and that the water found in the ventricles of the brain after death, is the consequence and not the cause of the illness. That serous effusions are often the consequence of inflammation, will not admit of a doubt; and from my own observation on dissecting hydrocephalous bodies, I believe them to be frequent causes of this disorder: but why not suppose the disease, at times, likewise to be founded on an hydropic diathesis, and a consequent laxity of the exhalants; particularly in cases where the constitution has been previously delicate, where the pain of the head has not been acute at the commencement, and where the pulse has, from the first, indicated a state opposite to that of inflammation?

Upon

Upon the whole, as I trust I have shewn how extremely injurious the indiscriminate use of mercury may prove, I hope it will in future be employed with more circumspection,

*“ Felix quem faciunt aliena pericula cautum; ”*

for although it has not been successful in my hands, yet, considering the manner in which it has been recommended by some men eminent in our profession, I would not wish, under certain circumstances, to discountenance its use; for where the inflammatory diathesis is absent, and a general stimulant may be useful, there, provided evident marks of the disease are present, I would pursue a mercurial course: but as the subjects of this disease are commonly children of the rudest health, in whom we often find an inflammatory determination to the head, I would, in such cases, previously to the use of mercury, recommend a general evacuating plan.

Taunton,  
May 19, 1788.

IV. *Cases of the spontaneous Cure of Aneurism, with Remarks. Communicated in a Letter to Dr. Simmons, by Mr. Edward Ford, Surgeon to the Westminster General Dispensary.*

AN aneurism of the larger vessels, when it occurs in the trunk of the body, is a disease that is usually fatal; and it is not uncommonly so when it happens in the extremities; the mode of cure in the latter case, whether by amputation of the limb, or by tying the artery, being universally allowed to be hazardous. These considerations have induced me to request of you a place in the London Medical Journal for the following cases and observations, written with a view to draw the attention of the public to the efforts nature sometimes spontaneously makes towards relieving herself of this disease. These efforts, although they have not altogether escaped the notice of medical practitioners, have, in this country, not been much attended to. Future investigation will probably throw such a light on this important branch of the pathology of aneurism as may lead to great practical improvements. The cases I now communicate to you, serve to establish the fact, that in cases of aneurism,

firm, the efforts of nature alone, unassisted by art, have produced, in the coats of the vessel; a coalescence of its sides firm enough to render the artery impervious to the impetus of the blood, whilst the circulation in the extremity has been amply supported by the collateral branches going off above the aneurismal tumour.

The first opportunity of becoming acquainted with this fact, occurred to me, several years ago; in the case of a chairman who applied to me at the Westminster Dispensary for a swelling in the ham, which was evidently a popliteal aneurism, and was considered as such by the Physicians of the Dispensary as well as by several surgeons of eminence. The patient was afterwards admitted into an hospital; and, at the end of three months, when he called upon me; I found that the tumour had totally disappeared; and that the limb was wasted, and a little weaker than the other, but that he was capable of doing his business. Upon inquiry I could not learn that the cure could be ascribed to any other means, than to the efforts of nature, with which an horizontal position of the body and a regular diet might perhaps have cooperated.

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This man died soon after, of a fever, and as the limb was not examined by dissection, and a doubt arose whether the tumor was aneurismal, or not, the circumstances of the case were not deemed strong enough to justify any inference to be made from it; but they served to stimulate me to a close attention to the disease, and in the following case I had an opportunity of gaining a further insight into this remarkable phenomenon.

#### C A S E I.

**J**OHAN CATHAY, thirty-six years of age, of great St. Andrew's street, Seven Dials, applied to me for the cure of a tumour situated on the anterior and upper part of the right thigh, about three inches below Poupart's ligament. It was of the size of a turkey's egg and had a strong pulsation. He said that it had been increasing several weeks. The limb, at this time, had undergone no farther alteration, and he walked apparently with ease. He shewed me, at the same time, a swelling of about the size of a pullet's egg in the ham of the other leg, in which was felt a tremulous pulsation; but this, he said, was attended with

no inconvenience. He was a healthy-looking man, and followed the business of a cloaths-preffer, an employment that requires a strong exertion of the muscles both of the upper and lower extremities.

I had so little to say to him, which could administer the smallest degree of comfort, that I saw no more of him for two months, when I was requested to visit him, and found him in bed, with a burning skin, a quick, full pulse, difficult respiration, and a tendency to delirium. The swelling of the right thigh, the dimensions of which were now very much increased, was covered with a cataplasm, composed chiefly of mustard seed, which had been applied by an empiric, with a view to promote the suppuration; and a cordial regimen had been directed for the same purpose.

The antiphlogistic plan, which seemed to be so obviously indicated, was now adopted, and with so good effect, that in a few days the fever was abated, and the local inflammation, occasioned by the irritating application, in some degree palliated; still, however, there remained an immense tumor extending from the groin downwards almost to the knee, strongly pul-

fating, and somewhat inflamed on its surface.

The patient was now seen by Mr. Andree, Mr. Cruickshank, Mr. Adair Hawkins, Mr. John Howard, Mr. Vaux, and the late Mr. Justamond, all of whom agreed with me in opinion that no operation of surgery could, at this period of the disease, give him a probable chance of recovery. We now examined the other leg, but found no traces left of the swelling I had formerly seen. This tumor, which I shall now venture to call a popliteal aneurism (as the subsequent dissection proved it to be such) had totally disappeared; but the knowledge of its having existed, and the conviction such knowledge carried with it that a disposition to this disease existed in the habit, had thrown a languor upon every exertion which, in the earlier stages of the complaint, might have been attempted for the relief of the patient. The objection to an operation was now, in some measure, done away by the disappearance of the tumour in the left ham; but still the great bulk of the aneurism, the absolute impossibility of fixing a ligature low enough to give a chance of preventing the limb from  
becoming



becoming mortified, and the difficulty of compressing the artery so as to prevent a fatal hemorrhage, were sufficient reasons for not attempting an uncertain operation.

The tumor was covered with a pledgit of white cerate. Opiates, gentle laxatives, and occasional venæsection contributed, for about six weeks, to palliate the complaint; but, at the end of that time the inflammation became livid, and a sphacelus, which took place on the integuments, terminated his life without any hæmorrhage.

The state of the limb was examined the day after his death, in the presence of several of the gentlemen above mentioned, and of Mr. Watson, surgeon of the Westminster hospital. The dissection exhibited the usual aneurismal appearances. The coats of the artery had given way, and burst at the fore part of the vessel; but the blood was prevented from issuing externally by the thick coagulum which adhered to the inflamed and sphacelated integuments, and formed a pretty strong barrier against the force of the blood.

The internal part of the aneurismal sac was lined with strata of coagulable lymph adhering

to the dilated vessel, and in some parts these layers were three inches in thickness. We found also, by the dissection, that the dilatation had taken place about an inch and a half below the *arteria profunda*, which vessel was in a perfectly healthy state. About two inches only, in length, of the femoral artery had been expanded, so as to form the tumour, extending as before described; the whole of the artery, both above and below this part, being quite free from disease. The blood seemed to have passed through the center of this mass, as there was neither any diminution of the femoral artery below the aneurism, nor any enlargement of the *arteria profunda*; and the degree of œdema, or coldness, in the foot, was not greater than might be supposed to proceed from pressure.

The aneurism of the left ham became now the subject of investigation. Externally there was no mark left of the tumour; but, upon cutting down to the vessel, we found the popliteal artery enlarged to the size of a small hazie nut. On opening the artery, both above and below this tumour, and endeavouring to pass a director and a probe, it was found to be quite impervious to the instruments, although  
some

some force was used; and upon farther examination it was found plugged up by a substance of a hard and firm consistence\*.

## C A S E II.

In the preceding case we have seen the spontaneous efforts of the constitution struggling, in vain, against an improper mode of treatment, or perhaps against the irresistible violence of the disease: in the present instance, I am happy in being able to relate a more successful event. The disease, in this case, put on the same formidable appearance; but nature, by being left undisturbed, produced a more favourable termination.

James Robson, aged thirty-seven years, and of a fair complexion, applied to me on the 24th of September, 1785, for the cure of a swelling on his thigh. On examination, I found it clearly aneurismal, being attended with strong pulsation, and an œdematous swelling of the foot and leg. It was now of about the size of a middle-sized China orange, and obviously increasing. The situation of it was so high up

\* This portion of the popliteal artery is now in my possession,

to admit of no hope of preserving his life by removing the limb, or by tying up the artery. It was therefore only recommended to him to lie in bed, to keep his bowels open by gentle laxatives, and to live upon a very spare diet.

He was seen by several gentlemen of the profession, amongst whom were Dr. Jackson, Mr. Hawkins, Mr. Home, Mr. John Howard, Mr. Hunter, Mr. Pearson, and Mr. Vaux, all of whom were convinced of the nature of the disease, and of the impracticability of affording the patient any assistance by the operation usual for aneurisins. With the concurrence, however, of those gentlemen, a compression was endeavoured to be made upon the artery in the groin; but the pain it occasioned in the limb, when the compression was strong enough to restrain the pulsation of the tumour, soon obliged us to forego this experiment. The disease was now left wholly to itself, and for four months those symptoms continued to prevail which usually precede a fatal termination. His pulse was hard and full, and the swelling, daily increasing, extended from Poupart's ligament upwards, almost to the ham downwards; the knee was bent without a possibility

ibility of extension; the leg and foot were cold and œdematous; the pulsation was strong in every part of the tumour; and the skin was tense and inflamed, appearing as if ready to give way in various places. He lay, in this manner, immovable for a long time, daily expecting the fatal moment when the integuments would be ruptured, and a fatal hæmorrhage ensue.

At the end of six months, during which time I had frequently called upon him, he began to think that the pulsation was not so strong in the swelling, and that it had now ceased to increase; for, having anxiously watched its progress, he had, during the whole of his illness, regularly measured it every week. Circumstances so favourable encouraged him to continue the plan of rest and abstinence which had been enjoined him, and it proved so successful, that, in the month of March, the circumference of the tumour was much lessened, and the pain had ceased; the tension was also diminished; the inflammation of the skin had given way, and was now become scabrous, putting on a mottled look, and appearing in some parts brown, and in others of an orange colour. He had also now the power of extending

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ing his knee a little, and the coldness and swelling of the foot were going off. For two months afterwards the tumour continued to lessen. His diet was gradually mended; a little animal food was occasionally allowed him, and he began to gain strength, and to sit up in his bed; and as soon as he could be removed with safety, he was sent into the country, where he soon recovered his strength and the use of his limbs so much, that in three months he was able to walk several miles with a stick. It is now upwards of two years since he has been able to resume his business, which is that of a stay maker. He frequently walks ten miles in a day without feeling any inconvenience, neither his leg nor his foot swelling. The thigh is two inches and a half in circumference larger than the other, and there is a hard incompressible tumour where the aneurism was, but which gives him no uneasiness.

## R E M A R K S.

The histories of uncommon cases, particularly of successful ones, are perhaps not the most useful communications in surgery. The feelings of human nature strongly militate against chyrurgical operations, and the report of  
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one limb being preserved from amputation has frequently occasioned the loss of many lives. It is, however, a fact too well authenticated, that, in the case of a femoral or popliteal aneurism, neither the operation of tying the artery in the usual mode, nor even that of amputating the limb, can be classed among the most fortunate efforts of surgery. We cannot be surpris'd, therefore, to see endeavours used to lessen the hazard of the operation, in such cases, by an improved mode of performing it; or to render it unnecessary, by pursuing the indications of nature in the cure of aneurism. That such means have been successfully pursued, is obvious from the cases of aneurism recorded by Morgagni \* from Valsalva; but the manner in which the cures were performed being then unknown, they appear with an air of empiricism, and we hesitate to believe what we are not able to explain. Many writers, however, since that time speak of the possibility of curing an aneurism, and various remedies are propos'd by them for this purpose; but still they place their chief reliance on bleeding, laxatives, and a low regi-

\* De sedibus & causis Morborum, Epist. iv. art. 9. Epist. xvii. art. 30.

men, and on keeping the patient quiet. This plan, I presume, they have recommended from observing that nature has sometimes effected a cure when such a mode has been adopted. Some cures of aneurism in the trunk, by medicine, are mentioned in books; but not being supported by any principles of anatomy, their authenticity must be very doubtful. It is certain, however, that an artery may remain dilated for many years before the fatal catastrophe takes place; and, if proper precautions are used, the coats of the vessel, though they have given way in some particular part, may, for a long time, sustain the impetus of the blood.

In Guattani's work\* upon this subject we have a series of well-supported facts relative to aneurism of the extremities. Some cases are related wherein the cure could be ascribed only to the spontaneous efforts of nature; in others the complaint was removed by compresses and bandages applied above the diseased part. Upon the whole, I think it may be presumed, from the cases above described, and from others

\* De Externis Aneurismatibus, Hist. 3, 4, 6, & 7.

which



which are related by authors, and in a very circumstantial manner by Guattani,

1st, That nature is capable of effecting the cure of many aneurisms solely by her own efforts.

2dly, That these efforts have been successful even when counteracted by improper treatment, as in the case of the popliteal aneurism, of Cathay, above related; but that a quiet position of the limb, with an antiphlogistic regimen, contributes to the cure.

3dly, That the cure by nature is a permanent one.

4thly, That the inert mass left behind is not likely to produce any mischief.

5thly, That the unsuccessful event of the operation, for the popliteal aneurism, does not, principally, depend on any particular hazard in consequence of an obstructed circulation in the ham, but upon other causes.

With regard to the manner in which the coalescence of the artery is formed, I should consider it as a consequence of the accumulation of strata of coagulable lymph with which the aneurismal sac is usually lined: these strata seem to be deposited, from time to time, till, at length, in some cases, they completely fill up the bag:

whenever this happens, if the communicant branches above the tumour are large enough to carry on the circulation in the extremity, the patient may (as in the case of Robson) recover; but if they are not, a mortification must, of course, ensue.

*Golden Square,*  
May 22, 1788.



V. *Observations on sudden Deaths occasioned by a Rupture of the left Ventricle of the Heart. By M. Portal, Professor of Anatomy, and Member of the Royal Academy of Sciences at Paris, &c. Translated from the French\*.*

**I**T would perhaps hardly be believed, were it not demonstrated by experience, that a muscular organ, like the heart, the parietes of which are so firm, is capable of being ruptured, and thus occasioning the most sudden death. Harvey has related an instance of this kind in his immortal work on the circulation of the blood,

\* This article is extracted from the Memoirs of the Royal Academy of Sciences at Paris, for the year 1784, published in 1787.

and

and succeeding anatomists have mentioned other similar facts in their writings.

It will be sufficient to read the works of Morgagni, Senac, and Lieutaud, to be convinced that the auricles and ventricles of the heart have occasioned, by their rupture, an extravasation of blood within the pericardium; but the most extraordinary circumstance in cases of this sort is, that it is not in the auricles, the texture of which is extremely thin, but in the ventricles, whose parietes are of so much thickness and strength, that accidents of this sort the most frequently occur. It seems to be certain also, that these ruptures happen more commonly in the left ventricle than in the right, although the parietes of the latter appear to be very yielding when compared with those of the left ventricle. This fact is confirmed by my own observations, and by different cases collected by the writers I have consulted; and it is very different from the case of simple dilatations, which are more common in the auricles than in the ventricles; in the same manner as it is more usual to see the auricles dilated beyond their natural diameter than the arteries, which last, on the contrary, give way more frequently than the veins.

Anatomical

Anatomical writers have given an account of all these varieties ; but as they do not seem to have paid sufficient attention to ruptures of the left ventricle, and to the causes that produce them, I have thought it right to communicate the observations I have had an opportunity of making on this subject. They are, perhaps, not altogether new ; but they will at least serve to corroborate the facts of the same kind related by different writers, and particularly by Morgagni, Senac, Haller, and Lieutaud.

It was in 1768 that I had occasion to make the first observation of this kind in the case of Madame de Chabanes, of the *rue des Jeuneurs*, who, till the age of sixty years, had enjoyed pretty good health. She then began to complain of a difficulty of breathing, which gradually increased, and at length became very distressing whenever she walked up stairs, or got into a carriage. Her pulse at such times was very irregular and even intermittent, and was some time before it returned to its natural state. It was remarkable, that she used to find herself less affected in a rough carriage than in such as were better suspended. She lived with this complaint till about the age of sixty-five years ; and as she found that bleeding was the  
remedy

remedy from which she experienced the most relief, she had accustomed herself to have recourse to it twice or thrice every year, and sometimes oftener : but the slightest agitation of mind constantly brought on a palpitation of the heart ; and at length one day, happening to be in violent anger, the palpitation became stronger than ever ; she was able to breathe only with extreme difficulty ; her face became pale, and she died suddenly.

I assisted at the opening of the dead body with M. M. de Vernage and Malouin, who had been her physicians, and here is an account of what we observed.

In the lower belly there was an extravasation, not very considerable in quantity, of a reddish serum ; the liver was very hard and obstructed ; the gall bladder contained four calculi, and was contracted, having the form of a canal of nearly equal diameter through its whole length. These were the only remarkable appearances in the abdominal cavity.

It was in the chest that we discovered the causes of death. The pericardium was found to be greatly distended with blood, much of which flowed out when the pericardium was opened. The auricles of the heart were of an enormous

enormous size, and the right ventricle was at least twice as large as the left ; but their parietes, instead of being found thinner, as might have been expected from this distention, appeared, on the contrary, to be thickened. Their texture, however, was less firm than usual, and they were ruptured in several places. Even the left ventricle, notwithstanding the great thickness of its parietes, was torn in three places. One of these openings was at the anterior part of the heart near its basis, and close to the tendinous substance that connects the aorta with the heart ; the other two were in the body of the ventricle, nearly parallel to that just now described, and a finger's breadth distant from it. The right ventricle was ruptured near the basis, towards the upper edge of the septum cordis.

The sigmoidal valves of the aorta were hardened, and beset with bony concretions. A collection of similar concretions, placed immediately behind the former, so impeded the action of these valves as to allow only a very limited passage to the blood ; and this passage was still more obstructed by the ossifications with which the aorta itself was incrustated.

The pulmonary artery was ossified in different places near its orifice in the right ventricle.

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The ligamentous annular substance that unites it with the ventricle, and supports the valves, was very hard and unequal, and so enlarged, that the opening was singularly contracted. The valves had acquired the consistence of cartilage; and the tubercles of Vidus Vidius, or, if you will, of Arantius, were as large as a pea, which is at least seven or eight times larger than they are naturally. I have said the tubercles of Vidius, because he appears to have been acquainted with them before Arantius, to whom Morgagni has attributed the honour of the discovery. On this subject the reader may consult my History of Anatomy.

It was, without doubt, by these obstacles that the heart was prevented from emptying itself in the systole. The resistance the blood made to the contraction of the ventricles occasioned these gradually to dilate; and, in the mean time, the circulation through the coronary vessels being slackened, the blood they contained was extravasated between the fibres of the heart; the texture of these fibres was weakened, and at length they were torn by their own contractions.

In some subjects who have died suddenly in consequence of a rupture of the heart, and of whose cases an account is given by Morgagni,

there have been found appearances in that organ nearly similar to those I have been describing ; but I am able to recollect no instance of a rupture of the two ventricles in the same subject, neither do I know that the tubercles of the valves have ever been found so much enlarged as in the case I have just now related. Without doubt the extreme softness of the parietes of the heart, in this instance, might facilitate their being ruptured ; but the ultimate cause of this accident must have been the pressure made by the blood, on those parts, in consequence of its not being able to flow out freely.

The second case I shall relate is, that of the Countess de Nevron, a lady who was extremely corpulent, and who had long been subject to a difficulty of breathing whenever she used any exercise that was at all fatiguing. She came from Nancy to Paris without resting by the way, and on the evening of her arrival experienced great difficulty of breathing, together with severe colicky pains. A physician, who was called to her assistance, found her pulse very full, but remarkably irregular. About midnight she complained that her difficulty of breathing was become much more distressing, and she died almost at that instant.

Her



Her body preserved its warmth for a considerable time after death, especially about that part of the chest that corresponds with the heart; and on this account the dissection was delayed longer than usual.

The body was so loaded with fat, that its bulk was enormous. Under the integuments this substance was more than four fingers breadth in thickness; but the muscles were of their natural firmness. The quantity of fat contained in the omentum was so great, that it filled the greater part of the abdominal cavity. There was also much of it between the laminæ of the mesentery and around the kidneys. The liver was rather larger than usual, and there were five calculi in the gall bladder.

There was so great a quantity of fat between the laminæ of the mediastinum, that they were considerably separated from each other, and of course the cavity of the chest was diminished. The heart was covered with a layer of fat of more than two fingers breadth in thickness, and the pericardium was distended with blood extravasated from an opening at the basis of the heart near the aorta. The ligamentous substance that connects this artery with the heart was torn from the latter at its anterior part, so as to occasion an

opening, into which I could with ease introduce my little finger. In other respects the substance of the heart was as firm and compact as usual. Neither of the ventricles, not even that which was torn, was at all larger than common; and there was no appearance of erosion in any part of their substance. No alteration was perceptible in the coronary vessels, so that we could not attribute this accident to any defect in them, or to any preternatural affection of the muscular fibres of the heart.

Notwithstanding the great quantity of blood extravasated within the pericardium, there was still much remaining both in the arteries and veins of the heart; and is it not to an excess of this fluid, or to the enormous quantity of fat, that we may attribute the cause of the rupture in this case?

The part at which this rupture took place deserves to be considered. It was not at the apex of the heart, which is the thinnest part of that viscus, and where (according to Morgagni and Senac) ruptures of this sort most commonly happen; but at the basis, and consequently at a part where the heart, from its tendinous structure, seems to be the strongest.

The ventricle of the heart in which this pre-  
ternatural

ternatural opening took place, was, as we have seen, not more dilated than it is usually; neither were its parietes softened in the manner Senac and Morgagni found them to be in hearts covered with fat, and which were ruptured; so that this case forms an exception to what they have advanced on this subject: for those celebrated anatomists have endeavoured to attribute the predisposing cause of ruptures of the heart to some alteration in its texture. They imagined that the fat, collected about this viscus, softened its fibres, and was the cause why the blood, by distending it during the diastole, terminated by rupturing it. In some cases also they have ascribed this accident to an ulcer, which, by eroding the substance of the heart, had rendered it gradually thinner, till it could no longer resist the impulse of the blood; or they supposed that the ulcer had terminated by making a complete opening in the heart, and that this had occasioned an eruption of blood into the pericardium.

All these causes have taken place, and their existence has been confirmed by facts which the two writers just now mentioned have related and learnedly discussed; but in the case I have been describing there was neither any apparent alteration

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ration of texture in the heart, nor any marks of ulceration : on the contrary, the powers of this viscus seem to have been undiminished, and it appears to have been less owing to a want of firmness in the parietes of the heart than to an increase of resistance which they could not overcome, that the rupture took place ; and this accident must have happened at the time of the systole or contraction of the heart.

It cannot reasonably be allowed that the rupture of the heart takes place during the diastole, in the manner Senac and Morgagni have supposed, without admitting, as they have, a preternatural extension of the fibres of the ventricle previously to the rupture, by which means its capacity is more or less increased ; but, as in the case I have last described, as well as in some others I could mention, the ventricle in which the rupture took place was not enlarged, we may venture, I think, to conclude that it did not happen in consequence of any violent extension of the fibres of the heart. If their opinion was well founded, the heart would always burst at that part of the ventricles where the substance of the heart, between some of the muscular fasciculi, is as thin as the finest membrane ; but the facts I have related demonstrate  
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the contrary. All these fasciculi are drawn strongly towards each other during the contraction of the heart; the spaces they leave during the dilatation of that viscus then disappear, and they form a substance of infinitely greater firmness than that which is seen in the dead body: hence it seldom happens that the heart is torn in those places, as will appear from my cases, and from those which have been collected by anatomical writers. The ruptures that sometimes happen in other muscles serve to corroborate my opinion on this subject, as these have been known to give way in consequence of violent convulsions or excessive contractions, several memorable instances of which are quoted by Haller. Moreover, it may be asked by what means could the blood be driven into the ventricles with sufficient force to burst their parietes? This could only be from the venæ cavæ and auricles; but as the texture of these is infinitely weaker than that of the ventricles, we cannot ascribe to them such an effect, unless we suppose the texture of the ventricles to have been extremely weakened, which was not the case in the instance just now related.

A lady, sixty-five years old, thin, and of extreme sensibility, who had long been subject to palpitation

palpitation of the heart which had been thought to be spasmodic, had accustomed herself much to warm bathing. At length somebody advised her to try the cold in preference to the warm bath, and even to add ice, and apply some of it, in a large bladder, to her head. She accordingly adopted this method, and persisted in it even in very cold weather, till one day she fell into a state of syncope in the bath, and was taken out dead.

On opening the body, the pericardium was found to be so much dilated that the left lobe of the lungs was compressed by it, and pushed up towards the upper part of the chest. This dilatation of the pericardium was occasioned by extravasated blood, partly in a fluid, and partly in a coagulated state. A considerable coagulum was found adhering to the upper and posterior part of the heart, and when this was removed we discovered an opening, of about eight tenths of an inch in length, that led to the left ventricle which was full of blood. The diameter of the aorta, at its origin, was much contracted; the valves were of the consistence of cartilage, and turned backwards towards the heart; two of the fleshy columns were torn, and some of their tendinous extre-

mities

inities were found adhering to the edges of the rupture. These edges were jagged and irregular, somewhat resembling a piece of cloth that has been torn with violence; but there was no appearance of ulceration, and the parietes of the heart were nearly of their natural firmness, if we except a small spot close to the rupture, where the substance was so extremely thin, that it seemed remarkable that the perforation did not extend to this part. The left ventricle, the pulmonary vessels, and the right ventricle were much dilated, and the parietes of the latter were extremely thin. In the pulmonary artery and its valves there was nothing preternatural.

In this case the ossifications that were formed about the orifice of the aorta, in the left ventricle, were, without doubt, the primary cause of the rupture of the heart; for by lessening the diameter of that artery they must have impeded the passage of the blood through it, and the left auricle being prevented from emptying itself with sufficient facility, the pulmonary veins and artery became too much distended. The consequence of this was a dilatation of those vessels and of the cavities of the heart; and, as the parietes of the right

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ventricle are much weaker than those of the left, the former yielded and, of course, became more dilated than the latter, which, on the other hand, were the first to become ruptured.

The application of cold seems, in this case, to have occasioned a considerable determination of blood to the interior parts of the body. Hence the heart became overloaded, and the left ventricle, unable to free itself by its contractions, at length gave way. In other cases we have seen a dilatation of the right ventricle occasioned by ossification of the valves of the aorta, or by other obstacles to the passage of the blood from the left ventricle; which shews that the causes of the alterations we find in the right side of the heart are sometimes to be sought for in the left. But the case is different with respect to dilatations of the left ventricle of the heart, the causes to which they are owing having uniformly their seat in that part, and being unconnected with any changes in the right ventricle. I have repeatedly seen a dilatation of the latter ventricle in subjects in whom the left ventricle, so far from being enlarged, was even smaller than usual; and, in all such cases, the cause of this has appeared to be owing to an impediment to the circulation.



lation in the pulmonary artery. As an instance of this kind I will just mention a case that occurred to me about fifteen years ago. The subject of it (M. Masson of the rue Mazarine), constantly spent a great part of the day in blowing the french-horn. At length he began to be troubled with a difficulty of breathing, and hæmoptœ, for which he had recourse to different remedies, and he was advised to lay aside his french-horn; but he no sooner got a little better then he returned again to the use of it. Soon after this he began to complain of a palpitation of the heart, which, though at first slight, soon became more violent and durable. He was troubled, about the same time, with a continual sense of suffocation, and also with pain about the sternum. His difficulty of breathing increased, his pulse became extremely irregular, and his legs swelled. At this period he found that he breathed best when he was in a standing posture, or sitting on a high chair. It was observed, however, that when he laid down, he experienced some relief when his breast was repeatedly and slightly compressed; but notwithstanding this, he was unable to remain long in this position. He was subject to frequent fainting, and at length

died in a kind of suffocation. His extremities, during the last two days of his life, were as cold as marble.

The dissection shewed that his death had been occasioned by an enormous dilatation of the right ventricle of the heart, which was full of coagulated blood. In this case the blood had been unable to pass out of the right ventricle with so much ease and in the same quantity as it entered by the corresponding auricle, and this gave rise to a gradual enlargement of the ventricle; while, on the other hand, the left ventricle became contracted, a circumstance that uniformly takes place whenever the dilatation of the right ventricle is occasioned by any impediment in the orifice or course of the pulmonary artery.

Such are the facts I proposed to myself to communicate relative to this subject. They prove,

First, That ruptures of the left ventricle of the heart are more frequent than is generally imagined :

Secondly, That accidents of this sort may take place without any alteration by which the texture of the heart has been previously weakened :

Thirdly,

Thirdly, That they are oftentimes an effect of the contraction, and not of the dilatation of the heart produced by the influx of the blood :

Fourthly, That, in general, when the left ventricle is dilated, the right ventricle is so also ; but that, on the contrary, the right ventricle is often dilated, while the left, instead of being likewise enlarged, is, in such cases, oftentimes contracted.

The greater part of these remarks having appeared to me to be interesting, I have been induced to give them a place in the present paper ; and I have done this the more readily from a persuasion, that if it be useful to investigate the means nature employs for her preservation, it must be not less so to learn how she tends to her destruction, as well for the sake of enabling us to avail ourselves of suitable remedies when they can be employed with advantage, as to know when to abstain from active modes of treatments, in cases where they may not only be useless, but even dangerous.

To my own observations I shall here add some remarks on the rupture of the left auricle and ventricle of the heart communicated to me by M. Chauffier, an experienced surgeon at  
Dijon,

Dijon, and which are highly deserving attention.

In the month of November, 1769, M. Chauffier was called upon to examine the body of a young and stout labouring man, named Stephen Grappin, at a place called Saulon. This person, who had been driving a waggon loaded with stones, having mounted one of the horses, fell down, and one of the wheels passed slowly, and in an oblique direction, over the left clavicle and side of the chest, leaving him without any appearance of life.

After removing the integuments and muscles, M. Chauffier found the articulation of the clavicle with the sternum injured; and a series of fractures along the whole of the left side of the thorax, extending obliquely from the anterior to the posterior part,

The first rib was fractured near the sternum; but this fracture was incomplete, for at the external surface there were still some bony lamellæ that preserved the continuity of this rib, but so that it clearly appeared to have undergone a gradual and violent compression. The second rib was fractured more obliquely outwards, and there were in  
the

the body of this rib two fractures, at the distance nearly of three inches from each other. The rest of the true ribs and the first of the false ribs were likewise each of them broken in two places; but the second of the false ribs was so only in one.

There was no appearance of contusion on the integuments, neither was there any extravasation of blood in the cellular membrane; the pleura and lungs were free from injury; but the pericardium was greatly distended, and when opened, was found full of coagulated blood, the auricle being torn at its basis near the ventricle, forming an opening large enough to admit two fingers to be introduced through it into the left ventricle.

M. Chaussier thinks it evident that the rupture of the left auricle, in this case, was occasioned by the pressure on the curvature of the aorta; and, indeed, this can hardly be doubted when we consider the direction of the wheel, the state of the clavicle and the injury done to its articulation with the sternum, the weight of the waggon, and the slowness of its motion. It would seem that, during the passage of the wheel over the chest, the curvature of the aorta being compressed, the passage of the  
blood

blood through it was impeded, and the left ventricle becoming, of course, preternaturally distended, the contractile power of the heart augmented in proportion to the resistance it experienced, and the consequence of all this was a rupture in the weakest part of the auricle; in the same manner, adds M. Chauffier, as we sometimes see the uterus ruptured at its fundus by the force of its own contraction, when there is at the collum uteri, or in the pelvis, an obstacle sufficiently powerful to resist the exit of the fœtus. In a series of experiments made by M. Chauffier on the irritability and sensibility of animals, he has seen the cavities of the heart dilate, and become ruptured, almost instantaneously, whenever he stopped the circulation in the great arteries. Thus, for instance, he has observed that, in a living animal, if we pass a ligature round the trunk of the aorta, or merely compress it with a pair of forceps, the left ventricle and auricle become torn. But he finds that, if the compression is made on the trunk of the pulmonary artery, although the right auricle and ventricle become considerably distended, and the contractions of the heart are redoubled, while every fibre of it seems to palpitate, yet no rupture of the right

cavities

cavities takes place, at least he has not seen an instance of it in his experiments.

M. Chauffier has favoured me with two other facts, which may serve as additional proofs that every thing that diminishes the diameter of the aorta may occasion a dilatation, and rupture, of the left cavities of the heart. The first of these facts is founded on the case of a man who died suddenly, in the year 1771, in consequence of a dispute with one of his companions. On dissection, the parietes of the left ventricle were found to be thin and dilated, and at the apex there was an oblong rupture of about an inch in extent. Near the curvature of the aorta, M. Chauffier discovered a tumour as large as a fist, and almost as hard as cartilage, which surrounded the trunk of the aorta a little below the origin of the subclavian and carotid arteries. The diameter of the aorta, at this part, was so diminished by the compression of the tumour, that the end of the little finger could not be introduced into it without difficulty.

The other fact is as follows. A young woman after the disappearance of a cutaneous eruption had been subject to a variety of complaints, such as pains of her limbs, head-ach, and vertigo; but the most distressing were a sense of weight

about the region of the heart, a great languor, difficulty of breathing, and at times very violent palpitations. These symptoms were ascribed to a suspension of the menses. Every remedy was useless, and at length in the year 1774, after she had been ill three years, she died suddenly while she was coughing up blood. She was then in her twenty-first year.

On opening the body, M. Chauffier found the left cavity of the chest full of blood, and the heart of an extraordinary bulk; the pericardium was so strongly adherent to this viscus that it could not be detached from it; the left auricle and ventricle were so much dilated as to admit easily the two fists, and their parietes were so thin that it was difficult to distinguish them from the pericardium. The dilatation, however, was not confined to the cavities of the heart, as the pulmonary veins were equally distended, and a rupture was discovered in the pulmonary vein that returns from the left lobe. This rupture was about nine tenths of an inch in extent, and was near the entrance of the vein into the lungs. The aorta was of its natural diameter, but the sigmoidal valves were indurated and thickened, and as large as a small almond, containing within their texture a thick white



white substance. This alteration of structure had impeded the free passage of the blood, and gradually produced the appearances observed by M. Chauffier in the left auricle and ventricle.

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VI. *Observations on some Causes of the Excess of the Mortality of Males above that of Females.* By Joseph Clarke, M. D. Physician to the Lying in Hospital at Dublin. Communicated by the Rev. Richard Price, D. D. F. R. S. in a Letter to Charles Blagden, M. D. Sec. R. S.—From the *Philosophical Transactions of the Royal Society of London*. VOL. LXXVI. For the Year 1786. PART. II. 4to. London. 1786.

Newington-Green, Feb. 6, 1786.

S I R,

I RECEIVED some time ago the inclosed letters and registry from Dr. Clarke, Physician to the Lying-in Hospital at Dublin. They contain some accounts that seem to me not improper to be communicated to the Royal Society.

The observations which have been made on the laws that govern human mortality prove,

that the mortality of males exceeds that of females in almost all the stages of life, and particularly in the earliest stages; and that this excess prevails most in great towns, and all the less natural situations of human life. The facts in these papers throw some light on this subject. Male fœtus's requiring more nutrition than female fœtus's, because larger, and being also for this reason more liable to injury in delivery, are brought into the world less perfect: and this happening more or less in proportion to the vigour and just formation of the mother, it must happen most in those situations where the greatest tenderness of frame and deviations from nature take place. The truth, in short, seems to be, that any debility in either parent must affect most the production of that sex which requires the largest and strongest stamina; and that such debilities prevailing most in great towns and polished societies, the excess of the mortality of males must also be greatest in such situations. And this I reckon the principal reason of a circumstance in human mortality which before I received these communications from Dr. Clarke, I did not so well understand.

With much respect I am, &c.

RICH. PRICE,

*Dr.*

*Dr. Clarke's first Letter to the Rev. Dr. Price.*

Dublin.

S I R,

IN your very useful Treatise on Life Annuities, &c. you remark \*, that “ it has been  
 “ observed, that the Author of nature has pro-  
 “ vided, that more males should be born  
 “ than females, on account of the particular  
 “ waste of males, occasioned by wars and other  
 “ causes. That perhaps it might have been  
 “ observed, with more reason, that this pro-  
 “ vision had in view that particular weakness  
 “ or delicacy in the constitution of males which  
 “ makes them more subject to mortality; and  
 “ which, consequently, renders it necessary  
 “ that more of them should be produced, in  
 “ order to preserve in the world a due propor-  
 “ tion between the sexes.” And further, you  
 elsewhere remark †, that “ the facts recited at  
 “ the end of your fourth Essay prove, that  
 “ there is a difference between the mortality of  
 “ males and females; but that you must how-  
 “ ever observe, that it may be doubted, whether  
 “ this difference so unfavourable to males, be

\* Vol. I. p. 373.

† Vol. II. p. 247.

“ natural

“ natural ; and that there are facts which prove  
 “ that you have reason for such a doubt.”  
 After stating a number of very satisfactory facts  
 of this kind you remark, that “ the inference  
 “ from them is very obvious ; that they seem  
 “ to shew sufficiently, that human life in males  
 “ is more brittle than in females, only in con-  
 “ sequence of adventitious causes, or of some  
 “ particular debility which takes place in po-  
 “ lished and luxurious societies, and especially  
 “ in great towns.”

What those adventitious causes are, or how  
 this particular debility is produced and operates,  
 are questions which appear to me highly inter-  
 esting and curious. I have therefore been at  
 considerable pains to examine and arrange a  
 very accurate and extensive registry in such a  
 manner as I hope will throw some light on these  
 questions. As it is to the accuracy of modern  
 registers that we are originally indebted for our  
 knowledge of the facts in question, I apprehend,  
 it is from the same source only that we  
 shall be enabled satisfactorily to explain them.

Of the registry inclosed, I beg leave to ob-  
 serve to you, Sir, that it has been kept from  
 its commencement by a man of uncommon ac-  
 curacy (one of the under-clerks of the House  
 of

of Commons); and that as the poor women and their children are obliged to pass through his office, before leaving the Hospital, his situation is such that there is no likelihood of his being deceived. It exhibits to our view the occurrences of twenty-eight years in above 20,000 instances: a number which I am inclined to think can hardly appear insufficient for establishing some general inferences and conclusions on a tolerably sure foundation. Although my reasoning on these matters should not appear very conclusive, or my calculations perfectly accurate, yet I flatter myself, that the facts will neither be unacceptable nor useless to you.

I believe it may be safely asserted, that anatomy has not hitherto detected any internal difference between the animal œconomy of the male and female, which can be supposed to account for their difference of mortality, more especially in early infancy; and this (it deserves to be particularly remarked) is the period during which the chances are much the greatest against male life. It is a matter of common observation that males, *cæteris paribus*, grow to a greater size than females, both *in utero* and every subsequent period of their growth. Consequently,

frequently, they must meet with more difficulty, and endure more hardship and fatigue, in the hour of birth. Accordingly, practitioners in midwifery, taught by experience, know, that when any considerable difficulty occurs in the birth of a child (for example, in all the different kinds of preternatural labours) they stand a much better chance of saving the life of a female than of a male. It is on this principle we can explain what our registry concurs with others in proving, viz. that near one-half more males than females are still-born. Naturalists are agreed, that the head of the human foetus is larger in proportion to its body than that of any other animal; and I believe it is certain, that no animal whatever brings forth its young with so much difficulty, pain, and danger, as a woman. Now as we know that the head contains one of the most important organs of the body to life, it is highly reasonable to suppose, that any additional injury which it sustains in delivery may produce very material effects on the whole system. These effects though often may not be always immediate. They may operate in weakening the male constitution so as to render it more apt to be affected by any exciting cause of disease soon after

Having found the relative proportions between the sexes to turn out thrice with so much uniformity, and observing them to correspond pretty nearly with some experiments, made for very different purposes by the late Professor Roederer, of Gottingen, I did not think it necessary to prosecute the subject farther.

Upon the whole, it may be observed, that the difference of weight between the male and female at birth may be rated at about nine ounces, or nearly a twelfth part of the original weight. In the circumference of their heads there is a difference of near half an inch, or about a 28th or 30th part; and the same proportion of a 28th is pretty nearly preserved in the transverse dimension. It is evident, as the bony passage through which infants pass is of a certain determined capacity, that, were their heads equally incompressible with those of adults, the difference of half an inch in their size would often prove fatal to them. By the compressibility of their heads, however, in well formed women, this difficulty is by time surmounted. The effects which such a compression on the brain may produce, have not hitherto been well attended to.

In reckoning children, weighing from  $5\frac{1}{2}$  to  $6\frac{1}{2}$ , 6 pounds weight, and from  $6\frac{1}{2}$  to  $7\frac{1}{2}$ , 7, and so forth, in order to avoid fractions, I find the number of males and females, arranged according to their weight, to stand as follow.

Males.							Females:								
lbs.	4	5	6	7	8	9	10	lbs.	4	5	6	7	8	9	10
N <sup>o</sup>	0	3	6	32	16	2	1	N <sup>o</sup>	2	9	14	25	8	2	0

Hence it appears, that the majority of males runs thus: seven, eight, six, five; whilst that of the females is seven, six, five, eight. Hence also appears the merciful dispensations of Providence towards the female sex; for when deviations from the medium standard occur, it is remarkable that they are much more frequently below than above this standard. In 120 instances there are only five children exceeding eight pounds and a half in weight. The same may be observed with regard to the size of their heads. Only six measured above  $14\frac{1}{2}$  inches in circumference, and these all of the male sex; five measured  $14\frac{1}{4}$ , and one 15. In transverse dimensions only four exceeded  $7\frac{3}{4}$ ; the largest of which was  $8\frac{1}{2}$ ; whereas deviations under the standard in these particulars were very numerous



numerous, never however under 12 around and  $6\frac{1}{4}$  across.

In the year 1753, Dr. Roederer published a Paper, *De pondere & longitudine Infantum recens natorum*, in the Commentaries of the Royal Society of Gottingen, of which the celebrated Haller was the principal institutor, and long the president. In this Paper he proves, in the clearest manner, by incontestible experiments, the absurdity of the ideas of obstetric writers with regard to the progress of the ovum during gestation, and the weight of the foetus after birth. He shews, although they state the weight of the foetus, come to the full time, to be from 12 to 14 or 16 pounds, that it is more generally 6 or 7, and very rarely exceeds 8. This deserves particular notice for two reasons; first, because it serves to shew how little dependence is to be placed on the assertions of authors who copy each other servilely, without having recourse to experiment even in the most obvious cases; and, secondly, because this paper has been overlooked by some of the most celebrated writers and teachers of midwifery now living. What idea are we to form of the accuracy of one of our latest systematic

writers, who (telling us that he has been a practitioner of midwifery, in a capital city, for twenty years, and a teacher for more than twelve) states, in one page of his work, that the weight of a foetus at eight months is about seven pounds; and on the opposite page, that at full time it weighs from twelve to fourteen pounds\*?

Of twenty-seven children, carried to the full period of gestation, weighed and measured in length by Roederer, without any attention to the difference of sex, I find, that eighteen were of the male and nine of the female sex; and that the average weight of the former was about 6 lbs. 9 oz., that of the latter about 6 lbs. 2 oz. 2 dr. Whether he and I used the same weights, I cannot exactly say. He observes, that he used the civil pound of Gottingen, which I can easily perceive consisted of 16 ounces, as mine did; but whether a German ounce be the same with ours, I have not *data* to determine. The average length of the males

\* See a Treatise of Midwifery (pages 88. and 89.) divested of technical terms and abstruse theories, by A. Hamilton, M. D. 8vo. edit. London, 1781.

measured by him is about  $20\frac{1}{2}$  inches, and of the females about  $19\frac{1}{2}$ . He weighed also the placentæ of 21 lying-in women, 16 of whom had borne male children, and five female. The average weight of the former was 1 lb.  $2\frac{1}{2}$  oz.; that of the latter 1 lb. 2 oz. Hence it appears, that in other circumstances, besides those I have taken notice of, the male and female sex differ. So far I thought it necessary to take extracts from Dr. Roederer's paper, as his observations and mine throw light on each other, and add confirmation to both.

The limits of this letter will not permit me, Sir, to trespass much farther on your patience. There is one circumstance or two so intimately connected with my former letter, that I cannot pass them over in silence. Having found that males suffer more in the birth than females, I was desirous of knowing whether the chance of the mother's recovery was thereby in any degree affected; and to determine this I was once more at the pains of turning over our registry with care. I found, that of 214 women, dead of single children, 50 were delivered of still-born males, and 15 of still-born females; 76 of living males, and 73 of living females.

females. Of the 15 dead of twins, 6 had twins one of each sex; 6 others had twins both of the male sex; and three had twins both of the female sex. All of which twins (two or three excepted), it is very remarkable, survived the death of their mothers. It would appear then, that the life of the mother is principally endangered in those cases where the bulk of the male's head precludes the possibility of his being brought into the world alive, either by the efforts of nature or art. The conception of twins we have observed to be more fatal to the mother than that of single children. The average weight of 12 twins, which have occurred to me of late, I find to be 11 lbs. a pair. The largest pair weighed 13 lbs. and the least  $8\frac{1}{2}$ . From some rude attempts made to ascertain the weight of the contents of the gravid uterus in cases of twin and single children, I am inclined to think, that they are to each other as about 15 to 10, or perhaps  $14\frac{1}{2}$  to  $9\frac{1}{4}$ .

Believe me, Sir, with great respect, &c.

J. CLARKE.

VII. *Expe-*

## An ABSTRACT of the REGISTRY kept at the LYING-IN HOSPITAL, in DUBLIN,

From the 8th of DECEMBER, 1757, to the 31st of DECEMBER, 1784.

By B. H. Register.

		Number of Pa- tients ad- mitted.	Went out not delivered.	Delivered in the Hospital.	Boys born.	Girls born.	Total number of chil- dren.	Women having twins.	Children dead.	Children still-born.	Women dead.	
From 8th to 31st De- cember, - - -	1757	55	—	55	30	25	55	—	6	3	1	
	1758	455	1	454	255	207	462	8	54	21	8	
	1759	413	7	406	228	192	420	13 thad 3	95	22	5	
	1760	571	15	556	300	260	560	4	116	36	4	
	1761	537	16	521	283	249	532	11	104	29	9	
	1762	550	17	533	279	266	545	12	106	33	6	
	1763	519	31	488	274	224	498	12	94	29	9	
	1764	610	22	588	287	308	595	7	83	28	12	
	1765	559	26	533	288	251	539	6	94	25	6	
	1766	611	30	581	324	261	585	4	111	18	3	
	1767	605	31	664	373	301	674	10	125	29	11	
	1768	689	34	655	362	302	664	9	154	47	16	
	1769	675	33	642	350	301	651	9	152	38	8	
	1770	705	35	670	372	305	677	7	107	37	8	
	Year ending 31st of December, - - -	1771	724	29	695	370	341	711	16	102	44	5
		1772	725	21	704	368	344	712	8	116	32	4
		1773	727	33	694	367	344	711	17	136	31	13
1774		709	28	681	357	334	691	10	154	29	21	
1775		752	24	728	364	378	742	14	122	27	5	
1776		883	31	802	418	407	825	22	132	39	7	
1777		872	37	835	452	395	847	12	145	35	7	
1778		961	34	927	476	460	936	9	127	39	10	
1779		1064	53	1011	550	476	1026	15	146	59	8	
1780		967	48	919	499	441	940	21	115	41	5	
1781		1079	52	1027	598	447	1045	18	121	38	6	
1782	1021	31	990	549	458	1007	17	127	57	6		
1783	1230	63	1167	632	553	1185	17 thad 3	91	72	15		
1784	1317	57	1260	642	640	1282	23	76	68	11		
Totals	20625	839	19786	10647	9470	20117	331	3111	1006	229		

Proportion of males and females born, about *nine* males to *eight* females.  
 children dying under *sixteen* days old, as *one* to about *six and a half*.  
 children still-born, as *one* to about *twenty*.  
 women having twins, as *one* to about *sixty*.  
 women dying in child-bed, as *one* to about *eighty-seven*.

EXTRACTS from the REGISTRY kept at the LYING-IN HOSPITAL, DUBLIN, from the Year 1757 to 1784.

UNIPAROUS.

Women.			Children.			
Delivered in Hospital.	Dead.	Sex.	Dead.		Still-born.	
		M. F.	M. F.	M. F.	M. F.	
19455	214	10305 9150	9150	10305	1247	602 351
		19455	2903			953
			953			
			Total 3856 dead and still-born.			

MULTIPAROUS, TWINS, TRIPLETS, &c.

Women.			Children.			
Delivered in Hospital.	Dead.	Sex.	Dead.		Still-born.	
		M. F.	M. F.	M. F.	M. F.	
331	15	342 320	116 91	91	29 20	
		662	207		49	49
			49			
			Total 256 dead and still-born.			

Inferences.

1. Proportion of males to females born nearly as - 17 to 15
2. ——— children dying under 16 days - 1 to 6 $\frac{2}{3}$
3. ——— children still-born - - 1 to 20 $\frac{2}{3}$
4. ——— males dying to females - - 4 to 3
5. ——— still-born to ditto - - 12 to 7
6. ——— still-born and dead of each sex to the whole 1 to 5
7. ——— women dying in child-bed - - 1 to 92

Inferences.

8. Proportion of male twins to females born - - 17 to 16
9. ——— twins dying under 16 days - - 1 to 3 $\frac{1}{2}$
10. ——— twins still-born - - 1 to 13 $\frac{1}{2}$
11. ——— male twins dying to females - - 5 to 4
12. ——— still-born to ditto - - 3 to 2
13. ——— still-born and dead of each sex to the whole 1 to 2 $\frac{1}{2}$
14. ——— women dying - - 1 to 22

Totals of dead and still-born.

Males.	Females.
1656	1247
602	351
2258	1598

Born in hospital	10305	9150
Dead and still-born	2258	1598
Sent out living	8047	7552
	7552	
Balance - -	495	in favour of the male sex.

Totals of dead and still-born, whether uniparous or multiparous.

Males.	Females.
1656	1247
116	91
602	351
29	20
2403	1709
Born 10647	9470
2403	1709
8244	7761
7761	

Totals of twins, &c., dead and still-born.

Males.	Females.
116	91
29	20
145	111

Born - -	342	320
Dead and still-born	145	111
Sent out living -	197	209
	197	
Balance in favour of the female sex	12	

Of 20117 children born, at the end of a fortnight, there is only a balance of 483 in favour of the male sex, although originally 1177; greater loss of males 694.

VII. *Experiments made to determine the positive and relative Quantities of Moisture absorbed from the Atmosphere by various Substances, under similar Circumstances.* By Sir Benjamin Thompson, Knt. F. R. S. Vide *Philosophical Transactions of the Royal Society of London.* VOL. LXXVII. For the Year 1787. PART II. 4to. London, 1787.

AS these experiments relate particularly to such substances as are commonly made use of for cloathing, an account of them cannot fail of being interesting to the medical reader.

The author having procured a quantity of the undermentioned substances, in a state of the most perfect cleanness and purity, exposed them, spread out upon clean china-plates, twenty-four hours in the dry air of a very warm room (which had been heated every day for several months by a German stove), the heat, during the last six hours, having been kept up to 85° of Fahrenheit's thermometer; after which he weighed equal quantities of these various substances in the room, with a very accurate balance, as expressed in the following table.

The same substances were then removed  
into

into a large uninhabited room on the second floor, and there exposed, in the same manner as before, during the space of forty-eight hours, on a table placed in the middle of the room, the air of the room being at the temperature of  $45^{\circ}$ ; after which they were again carefully weighed in the room, and found to weigh as under mentioned.

They were next removed into a very damp cellar, and placed upon a table, in the middle of a vault, where the air, which appeared by the hygrometer to be completely saturated with moisture, was at the temperature of  $45^{\circ}$ ; and in this situation they were suffered to remain three days and three nights, the vault being hung round, during all this time, with wet linen cloths, to render the air as damp as possible, and the door of the vault being shut.

At the end of the three days, each substance was weighed by the Author upon the spot, and found to weigh as is expressed in the third column of the following table.



The various substances	Wgt. after beingdried 24 hours in a hot room.	Wgt. after being ex- posed 48 hours in a cold, un- inhabited room.	Wgt. after being ex- posed 72 hours in a damp cel- lar.	
	Pts.	Pts.	Pts.	
Sheep's wool — —	1000	1084	1163	
Beaver's fur — —	1000	1072	1125	
The fur of a Russian hare —	1000	1065	1115	
Eider down — —	1000	1067	1112	
Silk {	Raw, single thread	1000	1057	1107
	Ravelings of white taffety	1000	1054	1103
Linen {	Fine lint —	1000	1046	1102
	Ravelings of fine linen	1000	1044	1082
Cotton wool — —	1000	1043	1089	
Silver wire, very fine, gilt, and flatted, being the ravelings of gold lace — —	1000	1000	1000	

The weight made use of in these experiments was that of Cologne, the parts or least divisions being  $= \frac{1}{25 \frac{1}{3} \frac{1}{3}}$  part of a mark, consequently 1000 of these parts make about  $52 \frac{1}{4}$  grains Troy.

The Author observes that he did not add the silver wire to the other substances from any idea that it could possibly imbibe moisture from the atmosphere; but merely to see whether a metal, placed in air saturated with water, is not capable of receiving a small ad-

dition of weight from the moisture attracted by it, and attached to its surface. From the result of the experiment, however, he remarks, it would seem that no such attraction subsists between the metal he employed, and the watery vapour dissolved in air.

From the above table it should seem that those bodies which are the most easily wet, or which receive water in its unelastie form, with the greatest ease, are not those which in all cases attract the watery vapour dissolved in the air with the greatest force.

Perhaps, remarks the Author, the apparent dampness of linen, to the touch, arises more from the ease with which that substance parts with the water it contains, than from the quantity of water it actually holds : in the same manner as a body appears hot to the touch, in consequence of its parting freely with its heat, while another body, which is actually at the same temperature, but which withholds its heat with greater obstinacy, affects the sense of feeling much less violently.

It is well known, he observes, that woollen clothes, such as flannels, &c. worn next the skin, greatly promote insensible perspiration ; and may not, he asks, this arise principally  
from

from the strong attraction which subsists between wool and the watery vapour that is continually issuing from the human body ?

That it does not depend entirely upon the warmth of that covering, is, he thinks, clear ; for the same degree of warmth, produced by wearing more cloathing of a different kind, does not produce the same effect.

He observes that the perspiration of the human body being absorbed by a covering of flannel, it is immediately distributed through the whole thickness of that substance, and by that means exposed by a very large surface to be carried off by the atmosphere ; and that the loss of this watery vapour, which the flannel sustains on the one side, by evaporation, being immediately restored from the other, in consequence of the strong attraction between the flannel and this vapour, the pores of the skin are disencumbered, and they are continually surrounded by a dry, warm, and salubrious atmosphere.

He is astonished, that the custom of wearing flannel next the skin should not have prevailed more universally. He is confident it would prevent a multitude of diseases ; and he knows of no greater luxury than the comfortable sensa-

tion which arises from wearing it, especially after one is a little accustomed to it.

He considers it as a mistaken notion, that flannel is too warm a clothing for summer. He has worn it in the hottest climates, and in all seasons of the year, and never found the least inconvenience from it. He observes, that it is the warm bath of a perspiration confined by a linen shirt, wet with sweat, that renders the summer heats of southern climates so insupportable; but flannel, he adds, promotes perspiration, and favours its evaporation; and evaporation as it is well known, produces positive cold.

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## CATALOGUE OF BOOKS.

1. **A** DISSERTATION on the Properties of Pus; which gained the Prize Medal, given by the Lyceum Medicum Londinense, for the Year 1788, and was ordered to be printed for the Use of the Society. By *Everard Home*, F. R. S. and one of the Presidents of the Lyceum Medicum. 4to. *Richardson*, London, 1788.

2. Observations

2. Observations on the Diseases of the Army in Jamaica ; and on the best means of preserving the Health of Europeans, in that Climate. By *John Hunter*, M. D. F. R. S. and Physician to the Army. 8vo. *Nicol*, London, 1788.

3. A Description of all the Bursæ mucosæ of the human Body ; their Structure explained, and compared with that of the capsular Ligaments of the Joints, and of those Sacs which line the Cavities of the Thorax and Abdomen ; with Remarks on the Accidents and Diseases which affect those several Sacs, and on the Operations necessary for their Cure. Illustrated with Tables. By *Alexander Monro*, M. D. Professor of Physic, Anatomy, and Surgery in the University of Edinburgh ; Fellow of the Royal College of Physicians and of the Royal Society of Edinburgh ; and Fellow of the Royal Academy of Surgery at Paris. Folio, *Elliot*, Edinburgh, 1788.

4. Experiments and Observations on animal Heat, and the Combustion of inflammable Bodies ; being an attempt to resolve these Phenomena into a general Law of Nature. By *A. Crawford*, M. D. F. R. S. L. and E. and Member of the Philosophical Societies of Dublin and Philadelphia. The second Edition with  
very

very large Additions. 8vo. *Johnson*, London, 1788.

5. A System of Surgery. By *Benjamin Bell*, Member of the Royal Colleges of Surgeons of Ireland and Edinburgh, one of the Surgeons of the Royal Infirmary, and Fellow of the Royal Society of Edinburgh. Illustrated with copperplates. 8vo. 6 vols. *Elliot*, Edinburgh, 1783-8.

6. The Generation of animal Heat investigated. With an Introduction, in which is an Attempt to point out, and ascertain, the elementary Principles and fundamental Laws of Nature, and apply them to the Explanation of some of the most interesting Operations and striking Appearances of Chemistry. By *E. Peart*, M. D. 8vo. *Gainsborough*, 1788.

7. An Enquiry into the Nature, Causes, and Cure of the Consumption of the Lungs: with some Observations on a late Publication on the same Subject. By *Michael Ryan*, M. D. and Member of the Royal Antiquarian Society of Edinburgh. 8vo. *Dublin*, 1787.

8. An Essay on the Treatment of Consumptions; in which the Causes and Symptoms are considered, and a new Mode of Treatment proposed. By *R. Charles*, Surgeon at Winchester. 8vo. *Herdfield*, London, 1787.

9. An

9. An Essay on the malignant, ulcerated sore Throat ; containing Reflections on its Causes and fatal Effects, in 1787. With a remarkable Case, accompanied with large Purple Spots all over the Body, a Mortification of the Leg, &c. &c. By *William Rowley*, M. D. Member of the University of Oxford, the Royal College of Physicians in London, &c. &c. To which are added, Animadversions on the present Defects in treating the Disorder, improved and successful Methods of Cure, and an Account of a new Species of temporary Madness, &c. 8vo. *Nourse*. London, 1788.

10. Elements of Medical Jurisprudence. 8vo. *Becket*, London, 1788.

11. Surgical Tracts : containing a Treatise upon Ulcers of the Legs ; in which former Methods of Treatment are candidly examined, and compared with one more rational and safe, effected without Rest and Confinement. Together with Hints on a successful Method of treating some scrophulous tumours, and the mammary Abscess, and sore Nipples of lying-in Women. The second Edition revised, enlarged, and defended. To which are now added Observations on the more common Disorders of the  
 Eye,

Eye, and on Gangrene. By *Michael Underwood*, M. D. 8vo. *Matthews*, London, 1788.

12. Cases of the Hydrocele, with Observations on a peculiar Method of treating that Disease. To which is subjoined a singular Case of Hernia Vesicæ urinariæ, complicated with Hydrocele; and two Cases of Hernia incarcerata. By *T. Keate*, Surgeon Extraordinary to her Majesty, and Surgeon to their Royal Highnesses the Prince of Wales and Duke of York. 8vo. *Walter*, London, 1788.

13. An Essay on the Bite of a mad Dog: with Observations on John Hunter's Treatment of the Case of Mr. R. and also a Recital of the successful Treatment of two Cases. By *Jesse Foot*, Surgeon. 8vo. *Becket*, London, 1788.

14. A few Remarks upon the Treatment and Cure of venereal and scorbutic Disorders; submitting a new Medicine to the Consideration and the Experience of the Public: to which are added, several select Cases to prove the efficacy of the Remedy here recommended. By *J. Donovan*, Surgeon. 8vo. *Egerton*, London, 1788.

15. Cursory Remarks on the new Pharmacopœia. By *Liquor volatilis Cornu Cervi*. 8vo. *Stalker*, London, 1788.



16. An Essay on Crookedness, or Distortions of the Spine in Children; shewing the insufficiency of a Variety of Modes made Use of for Relief in these Cases: and proposing Methods, easy, safe, and more effectual for the Completion of their Cures; with some Hints for the Prevention of these Affections, and their disagreeable, painful, and dangerous Consequences. Illustrated with several Copper-plates, taken from distorted subjects. By *Philip Jones*. 8vo. *Cadell*, London, 1788.

17. A Treatise on Medical and Pharmaceutical Chymistry; and the Materia Medica. To which is added, an English Translation of the new Edition of the Pharmacopœia of the Royal College of Physicians of London, of 1788. By *Donald Monro*, M. D. Physician to the Army, and formerly to St. George's Hospital, Hyde Park Corner; Fellow of the Royal College of Physicians, and of the Royal Societies of London and Edinburgh. 8vo. 3 volumes. *Cadell*, London, 1781.

18. Dissertatio Medica Inauguralis de Hepatitide Indiæ Orientalis. Auctore *Thoma Girdlestone*, Anglo. 4to. Lugd. Batav. 1787.

19. Index Plantarum quas in agro Erfurtenfi sponte provenientes olim ꝑ. *Phil. Nonne*,  
VOL. IX. PART II. D d deinde

deinde *J. J. Planer*, collegerunt. 8vo. Gothæ, 1788.

20. *Synopsis Systematica Scriptorum*, quibus inde ab Inauguratione Academiae Georgiæ Augustæ d. 17 Sept. 1737, usque ad sollemnia illius Inaugurationis semilæcularia 1787, Disciplinam suam augere & ornare studuerunt Professores Medici Gættingenses. Digestit & edidit *Jo. Fr. Blumenbach*. 4to. Gættingæ, 1788.

21. *De Probabilitate Vitæ ejusque Ufu forensi*, Commentatio prior, qua maxime Theoriam Expectationis Vitæ Antiquitati vindicat, *Frid. Aug. Schmelzer*. 8vo. Gættingæ, 1788.

22. *Trinka de Krzowitz*, *Historia Rachitidis*, omnis ævi observata medica continens. 8vo. Vindobonæ, 1787.

23. *Trinka de Krzowitz*, *Historia Timpanitidis*, omnis ævi observata medica continens. 8vo. Vindobonæ, 1787.

24. *Observationes Botanicæ circa Systema Vegetabilium Divi a Linné*, Gættingæ 1784 editum; quibus accedit justæ in manes Linneanos pietatis specimen. Auctore *Andrea Dahl*, Westgothia-Sveco. 8vo. Havnix, 1787.

25. *Dissertatio Epistolaris circa Inventionem Pulsus Antifidicroti tamquam veri signi futuram Diarrhœam ventosam demonstrantis in prosecutionem*

tionem inventi pulfifici Solanici ad Regiam Academiam Medicam Londinensem a D. *Francisco Xaverio Cid*, Regiæ Societatis Cantabricæ Amicorum Patriæ Socio, Academiae Medicæ Matritensis Academico, & Illustriſſimi Decani & Capituli Sanctæ Toletanæ Eccleſiæ Hiſpaniarum Primatis, Excellentiffimique & Illuſtriſſimi D. D. Franciſci Antonii Lorenzana, Archiepiſcopi Toletani Medico. 8vo. Toleti, 1787.

26. Conſtitutionis ævi noſtri febrilis quædam momenta. Conſentiente illuſtri Medicorum Ordine ſummos in Medicina & Chirurgia honores ambiturus conſcripſit *Albertus Rengger*, Helvetus. 8vo Gættingæ, 1788.

27. Specimen Bibliothecæ criticæ Magnetiſmi ſic dicti Animalis ; Conſenſu illuſtris Medicorum Ordinis pro obtinendis ſummis in Medicina & Chirurgia honoribus ſcripſit *Paulus Uſteri*, Tigurino-Helvetus. 8vo. Gættingæ, 1788.

28. *Thomæ Lauth*, M. D. Anat. & Chir. P. P. O. Noſologia Chirurgica. Accedit notiſſima Auctorum recentiorum Platneri. In Uſum Prælectionum Academicarum. 8vo. Argentorati, 1788.

29. Oratio Inauguralis habita in Gymnasio Patavino 3 Id. Octobr. An. 1786 a *Stephano Gallino* cum primùm ad Theoricam Medicinam Ordinariam publice profitendam accederat. 4to. Venetiis, 1787.

30. Analyse des Eaux Minerales de Charbonnière dites de Laval; par M. de *Marsonnat*, Curé de la Paroisse de Tassin & Charbonnière, en Lyonnais. 8vo. Lyon, 1787.

31. Précis du Succès des Eaux Minerales de Charbonnière, dites de Laval; par M. de *Marsonnat*. 8vo. Lyon, 1787.

32. Description des Bains de Geismar en Hesse; par un Ami de l'Humanité. 8vo. Berlin, 1787.

33. Avis au Peuple François sur sa Santé, ou Précis de Médecine pratique, propre aux différens Lieux, Temps, Circonstances, & au Temperament de la Nation; par M. de *Lavaud*, ancien Chirurgien-Major dans les Armées navales, 8vo. Paris, 1788.

34. Traité de l'Insertion de la petite Verole, ou de l'Inoculation, reduite, d'après un grand nombre d'Observations, à l'Etat de Simplicité qu'elle exige pour être infailliblement salutaire; par M. *Tudesq* fils, Docteur en Médecine de l'Université

l'Université de Montpellier, Médecin en Chef de l'Hôpital Militaire de la Ville de Cette, &c. 8vo. Montpellier, 1787.

35. Extrait des Registres de l'Académie Royale des Sciences, du 12 Mars 1788. Troisième Rapport des Commissaires chargés, par l'Académie, des Projets relatifs à l'Etablissement des quatre Hôpitaux. Imprimé par Ordre du Roi. 4to. Paris, 1788.

This Report contains the Observations made by two of the Commissioners (Messieurs Tenon and Coulomb) on the English Hospitals; and likewise a Plan and Description of the four Hospitals intended to be erected at Paris.

36. Versuch über den Nutzen der Nervenknotten, *i. e.* An Essay on the Uses of the Ganglions of the Nerves. By *James Johnstone*, M. D. Translated from the English. 8vo. Stettin, 1787.

37. Ein Paar Worte über die Pocken und über die Inoculation derselben. *i. e.* A Word or two on the small Pox and on Inoculation. By *C. F. Elfner*, M. D. Professor of Physic at Königsberg. 8vo. Königsberg, 1787.

38. Neue Bemerkungen und Erfahrungen zur Bereicherung der Wundarzneykunst und  
Arzneygelahrheit.

Arzneygelahrheit. *i. e.* New Observations and Experiments for the Improvement of Surgery and Physic. By *O. J. Evers*. 2vo. Göttingen, 1787.

39. Kleine Physikalisch-chemische Abhandlungen. *i. e.* Physico-chemical Essays. By *John Fred. Westrumb*. vol 2d. 8vo. Leipzig, 1787.

40. Versuch einer vollständigen Abhandlung über die so genannte Englische Krankheit. *i. e.* An Essay towards a compleat Treatise on the so called English Disease. By *J. F. L. Cappel*, M. D. Assessor of the Imperial College of Physicians at Peterburgh. Part. I. 8vo. Berlin; 1787.

41. Von Thierischen Magnetismus. *i. e.* On Animal Magnetism. By *E. Gmelin*. 8vo. Tübingen, 1787.

42. Chemische Abhandlung vom Schwefel. *i. e.* A Chemical Treatise on Sulphur. By *F. Aug. von Wasserberg*. 8vo. Vienna, 1787.

43. Memoria Istoria della Febbre Epidemica, che ebbe corso nella Terra di S. Stephano Ducato di Milano dal Principio di Ottobre dell' Anno 1783 fino al compiersi di Giugno del 1784 dell Dott. *Francesco Beretta*  
Medico

Medico nel Borgo di Magenta, e Socio delle Accademie di Botanica, e de Georgofili di Firenze. 8vo. Milano, 1787.

44. Malattia verminosa della vescica, descritta dal Sig. Dott. *Jacopo Parzani*. 8vo. Venezia, 1787.

This is the case of a man, fifty years old, who after having for some time laboured under a painful complaint, which was thought to be occasioned by a stone in the Bladder, was relieved by voiding two small round worms (*lumbrici*) with his urine.

45. Saggio Medico sui vasi linfatici, &c. Coi mezzi di prevenire gli effetti delle sostanze velenose, come farebbe la saliva del cane arrabbiato, il veleno della vipera, il veleno venereo, &c. Del Sig. *Assalini* il figlio. 8vo. Torino, 1787.

46. Memoria per servire all' intiera perfetta estinzione in tutte le Nazioni Europee del vajuolo, e di tutti i morbi contagiosi sì acuti che cronici eccettuata la lue venerea, &c. Del Sacerdote D. *Francesco Maria Scuderi*, di Viagrande in Sicilia, Dottore di Medicina, tradotta dal latino dallo stesso Autore. 8vo. Napoli, 1787.

47. Recueil

47. Recueil d'Observations, ou Mémoire sur l'Epidémie qui a régné en 1784 & 1785 dans la Subdélégation de la Châtaigneraye, en bas Poitou ; suivi d'un Supplément sur les Maladies regnantes pendant l'année 1786 ; accompagné de Notices sur les mêmes Maladies dans les différens Départemens de la Généralité de Poitiers ; extraites de la Correspondance de M. *Pallu*, Conseiller du Roi, Doyen, Docteur-Régent de la Faculté de Médecine en l'Université de Poitiers ; Médecin en chef des Epidémies du Poitou, Correspondant de la Société Royale de Médecine de Paris : Ouvrage qui a remporté un des premiers prix de la Société Royale, le 29 Août 1785, publié par Ordre du Gouvernement & aux frais du Roi ; par M. *J. G. Gallot*, Docteur en Médecine de l'Université de Montpellier, Médecin de S. A. S. Monseigneur le Duc d'Orléans, Conseiller-Médecin-ordinaire du Roi, &c. 4to. Poitiers, 1787.

48. Essai sur l'Histoire Naturelle de la Grossesse & de l'Accouchement. Par M. *Alphonse le Roy*, Docteur-Régent, Professeur de Médecine, des Accouchemens, & ancien Professeur de Chirurgie des Ecoles de la Faculté de Médecine de Paris. 8vo. Paris, 1787.



THE  
L O N D O N  
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T H E

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I. *Additional Observations on Amputation. Communicated in a Letter to Dr. Simmons, F. R. S. by Mr. James Lucas, one of the Surgeons of the General Infirmary at Leeds, and Member of the Corporation of Surgeons in London.*

FROM a reconsideration of those observations on amputation\* you have done me the honour to communicate to the Public through the channel of the London Medical Journal; and the objections that have been made by others to some parts of the practice; as well as from the additional experience I have since had, I am induced to request an insertion of some farther remarks on the subject.

It has been observed, that the flap operation does not succeed, and that the secondary union of the flap is preferable to placing it in immediate contact. Some have objected to Mr. Alanson's plan, from the difficulty of making the

\* See Vol. VII. page 225, and Vol. VIII. page 142.

floping

sloping incision through the muscles; whilst others have thought this difficulty a sufficient reason for totally discontinuing his improvements. His after-treatment has also been censured for procuring the union too hastily, and subjecting the healing of the wound to be impeded by the formation of matter, as well as for producing a difficulty in the casting off of the ligatures.

Having been a practitioner of this operation at an hospital for twenty years, and having made trial of every method that appeared to the surgeons, in consultation, an improvement, as well as having paid peculiar attention to this subject, I feel myself able to write upon it with some precision; and hope to elucidate what I have already advanced by enumerating such cases as appear to me most explanatory of the practice I have ventured to recommend.

Of not less than sixty or seventy amputations, only four or five have been done immediately after the accident; nor have the deaths exceeded that number, and these have been all in chronic cases; not one has happened since we united stumps by the first intention. It, therefore, cannot be said that we have been advocates for speedy

dy amputation, or that our practice has been unsuccessful.

On looking over my notes concerning the operations that happened at the hospital I attended in London, I find, that, of nine patients who underwent amputation chiefly for chronic diseases, four died. As the surgeons were of great eminence in their profession, much of this want of success must be attributed to the bad air of a crowded hospital in the center of a populous city; and, in the causes of this fatality, the intemperance of some of the patients might also have a share.

The intention of my former paper was neither to recommend precipitate amputation; nor that the expression \* respecting the life of the patient being *immediately* concerned should have any relation to chronic cases. It was not written merely to revive any particular operation, but to give a sketch of such practice as appeared to me to have merit; as well as to point out such deviations from it as had come to my knowledge, and had been probable causes of failure.

I confess myself still an advocate for the flap operation; in certain cases, in preference to the

\* Vol. VII. page 225.

established circular incision. In amputations near the ankle, the flap, united by the first intention, is, of all other operations, the most satisfactory. The facility with which it unites, its peculiar neatness, and future advantage, are strong reasons for preserving, not only in this but in all other similar operations, a due proportion of muscular parts. From continuing to observe *constant and unremitted success* attend the uniting the flap immediately; and from a perfect recollection of the additional pain at each dressing, as well as the delay occasioned by the secondary union, I cannot, in too strong terms, repeat the merit that is due to the speedy cure.

Before, when we were in the habit of dressing the flap and stump separately\*, the patients begged “they might not be flapped,” from the violent pain they understood others had felt; whereas, since the flap has been united immediately, several have particularly requested that the operation might be done with a flap.

In the strong muscles near the knee there is more difficulty in forming and adapting a flap;

\* See Medical Observations and Inquiries, Vol. V. page 323, where I have given my reasons for having formerly advised that practice.



but a much better stump may in that part be procured by an oblique incision, reserving a greater proportion of cellular and muscular parts, so as nearly to meet the anterior teguments.

If the parts above the knee are sound, we prefer Mr. Alanson's operation; but if they are diseased, or ulcerated, and yet there can be chosen a sound flap, whether it be anterior, posterior, or lateral, we find the amputation with a flap more eligible, and equally successful.

The sloping incision through the muscles, directed by Mr. Alanson, requires the operator to cut with that edge of the knife near its point, as I have already observed \* in my former paper; where I have also added, that a defect in the execution of it, so far from being a sufficient reason for discontinuing the plan, produces no material alteration either in the cure or future benefit; nor have I omitted † to speak fully to the possible objections.

In all the methods of uniting wounds by the first intention, we prefer the saving so much of the soft parts, that the edges of the wound

\* Vol. VII. page 230.

† Ibid. page 241.

may meet with great facility, and keeping them in contact by passing, with a round needle, as many futures as appear necessary to support the union ; and so confident are we of its being totally unnecessary to leave any opening for the discharge of matter, (farther than is requisite for the impending ligatures) that we unite the intervening spaces with short slips of court plaster.

In many instances there will be found some maturation at the first dressing ; but this circumstance should not induce us to use means to encourage it, or to desist from retaining the lips of the wound in contact, as the perfect adhesion of the parts will not be obstructed.

The discharge will be more or less in proportion to the number of ligatures ; to the quantity of substance included with the artery, or of blood either left on the stump, or oozing from it after it has been dressed : it may depend also on the cellular parts being more or less diseased. But in no instance whatever have I seen any failure from these circumstances ; or any other benefit from leaving the edges of the wound farther separated, (although that has occasionally been tried) except this, that the ligatures, I have thought, were removed rather more easily, and  
sooner.

sooner. But this never seemed to compensate for the additional pain suffered by the patient at each dressing of the stump.

For some time we united the edges of the wound with long and broad slips of adhesive plaster, spread on leather, at the first dressing; but we found that the whole limb was rendered more uneasy, and the edges of the wound inflamed more, than since we have adopted the method of using futures and short slips of court plaster. Still, however, when the futures are removed, we find a long slip of adhesive plaster, as broad as the flap, useful in supporting a strict adhesion; but in Mr. Alanson's method the continuance of the long tow pledgets is, in general, a sufficient support.

Since we have discovered the dimensions requisite \*, and marked the parts for incision, no difficulty has arisen in adapting them with exactness; and since the apparatus has been disposed according to an alphabetical list marked upon a card, which is constantly kept with the instruments, no perplexity has happened from any article having been forgotten; and I still think these minutiae by no means unworthy the notice

\* Vol. VII. page 229.

of any practitioner, particularly of such as are not in the habit of performing operations.

I have not, for some time, had occasion to use a retractor, which I have found liable to separate the periosteum above the part where the bone is sawn through; and I still prefer the saw being held with an elevated hand, rather than sawing through the bone horizontally.

### C A S E I.

In November, 1765, whilst I was a dressing pupil at St. Bartholomew's hospital, in London, I was called to a compound fracture of the tibia and fibula, within four inches of their lower extremity. Not only the bones were violently broken, but the muscles were much torn. Mr. Crane, who was soon after sent for, took no small pains to persuade the man to lose his limb, as the only chance of preserving his life. Being unable to prevail, he removed two inches of the tibia, placed the limb in an extended state, and gave such directions as he thought necessary.

The next morning the patient informed me, that for several hours he had suffered more than he could possibly have done from an operation, to which he was therefore now desirous of submitting;

mitting; but Mr. Crane was of opinion that such a step could only tend to hasten his death, which happened on the third day after the accident.

## C A S E II.

A Coalminer was admitted into the Leeds Infirmary with his leg terribly shattered by a fall of coals, several pieces of which had penetrated into and were intermixed with the muscles. At first the bleeding was violent, but it gradually abated. Cooling remedies were applied, and a tourniquet was kept in readiness. The hæmorrhage returned every or every other day, but always ceased before any artery, from whence it came, could be discovered. Although every attention was paid by a person placed to watch the limb, the patient died in ten days. Neither the habit nor state of his limb were such as to render amputation adviseable, unless it had been done early.

A patient of mine, who was not brought into the Infirmary until some days after a compound fracture of the leg, sunk under the discharge and fever before his limb became in a condition to warrant an operation; whilst another man, admitted a few days after the accident, and apparently

rently sinking, underwent an unsuccessful amputation.

### C A S E III.

A Coalminer, whose leg was much shattered about the middle, by having two or three inches of it removed, after struggling through many difficulties from abscesses, exfoliations, and great fever, gradually recovered, and had in the end an useful limb.—This man was confined to his bed near four months.

### C A S E IV.

James Walker, upwards of sixty years old, was admitted into the Infirmary with a very bad compound fracture, which prevented him from being able to have his bed made for near nine months. At first every attempt was made to unite the wound by the first intention; but a suppuration soon prevented such an effect. He was repeatedly in imminent danger, and often expressed a wish still to have his leg taken off. He did in time recover; but for some years his limb has continued of little use to him.

### C A S E V.

A middle-aged man had the misfortune to have both bones of his leg, near the knee, broken  
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ken by a loaded carriage. There was a wound communicating with the fracture; and from this aperture, which was not larger than to admit the blunt end of a probe, flowed a stream of blood, as when a vein in the arm is opened. The wound was dilated, with a view to discover from whence the blood came, or to remove any stricture that might occasion it, but in vain. From the quantity of oil mixed with the blood, the medullary artery was supposed to be wounded. As the hæmorrhage could be almost entirely restrained, when the hand was pressed upon a piece of sponge applied to the wound, it was agreed that such pressure should be made until the bleeding was stopped. It was more than forty-eight hours before that was accomplished; yet it succeeded, and the cure was very satisfactory. The violent swelling of the knee and parts adjacent would, in this case, have rendered an operation equally difficult, had we been unable to have checked the bleeding.

#### C A S E VI.

Esther Pearson, aged seventy-three years, was admitted into the Infirmary, as my patient, with a compound fracture of each leg, from a coal waggon passing over them. One of her limbs  
 was

was taken off above the knee immediately, according to Mr. Alanfon's method; and an account of the operation is given both by Mr. Hey and myself in the second edition of Mr. Alanfon's work on amputation.

About four inches of the tibia of the other leg were removed, and due pains taken to make the poor woman as comfortable as her deplorable situation would allow. The limb was so starved, that a warm cataplasin became needful; otherwise I usually apply soap cerate, or saturnine lotion at the first.

After a confinement in bed of upwards of ten months, various attempts were made to support her upon crutches; but, after trying for a few weeks, she endured so much pain, that she begged for the removal of a limb that was to a degree burdensome, without a prospect of any amendment. On its being agreed to comply with her request, a doubt was entertained whether the amputation should be performed above or below the knee. The latter was unfortunately made choice of; for although an uncommon number of arteries were secured by ligatures, yet there still continued a very menacing bleeding from the surface of the stump, until the edges of the wound were, by long slips of adhesive

five



five plaster, drawn as nearly into contact as they would admit. Although this pressure appeared to be beneficial, yet in less than four hours the hæmorrhage returned with such violence, that I found the woman scarce able to speak. The dressings being immediately removed, not a single vessel requiring a ligature could be discovered, and yet the bleeding continued from the whole surface of the stump so violently as to render some instantaneous check necessary. Accordingly large pieces of sponge, sufficient to cover nearly the whole of the naked stump, were applied, and by the hand pressed with some force for upwards of twenty-four hours before the bleeding would otherwise cease. At that time the sponge began to distend, and evidently brought on the most violent inflammation, swelling, and acute pain, I recollect to have seen upon any occasion, and which, perhaps, cannot be better described than in the patient's own words —

“ I am extremely sorry (said she) that you  
 “ did not, as you seemed inclined, take off my  
 “ leg above the knee, and cure it in the same  
 “ easy way that you did my other limb; for the  
 “ pain of that operation, and the whole cure,  
 “ was nothing compared with what I now feel

“ even in my old stump; what must I then  
 “ endure in the recent one ? ”

Cold vegeto-mineral water assiduously applied, and opiates liberally administered, afforded her some relief. A copious suppuration succeeded, and, by degrees, the granulations shot through the fibres of the sponge until it seemed so organized as to add greatly to the difficulty of destroying, or, by any means, separating it. I regretted much that we had not tried to find some intervening substance which might prevent the bad effects and yet not destroy the styptic quality of the sponge. The muscular parts, which had been reserved in the hinder part of the leg, were still found of great use, as she had, in the end, a very excellent stump.

The appearances of the callus, on examining the amputated limb, were too curious to be omitted. At the end of each fractured bone a callus had begun to form, over every part of which a periosteum had grown; from this membrane were tendinous and muscular fibres intermixed, so as to unite the ends of the bones. For a space of two inches, which should have been callus, there was no ossification whatever; but, instead of it, only muscular  
 and

and tendinous fibres; nor is it probable there ever would have been even in any habit, much less in a woman at her time of life.

The patient frequently, and in the most pathetic terms, described the difference of pain in a stump healed by the first intention, and the dressing of an open stump even when nearly healed. In short, nothing but her remarkably strong constitution and composure of mind could have supported her under such tedious sufferings. For two years she continued to enjoy good health, and then died of an epidemic dysentery.

As the first stump was perfectly cured in a month, and the second not in less than four months, we have, in this case, a strong proof of the success of Mr. Alanson's method, even under very difficult circumstances, compared with a more open stump, although considerable delay may be attributed to the sponge. Every care and attention proved, in this instance, insufficient to prevent subsequent hæmorrhage. I recollect also three other similar cases from operating near the affected part; besides one which required even a second amputation.

All the preceding cases demonstrate the pro-

priety of a speedy decision whether amputation is or is not necessary.

### C A S E VII.

Thomas Wilkinson, a middle-aged man, was become hectic from an old and large ulcer in the leg, with a caries of the bone. The ulcer had several times bled to an alarming degree, and, from the integuments being thickened and diseased in the vicinity of the ulcer, we judged an amputation below the knee would most probably be attended with circumstances similar to those of Esther Pearson's case. We likewise thought the man too weak to sustain any copious evacuation; and therefore advised the operation above the knee, which was done according to Mr. Alanson's rules, without any subsequent hæmorrhage, and the stump was healed in a month. This case happened six years ago, and the patient is now well, and has an useful limb.

I have no doubt but this person reaped considerable benefit from having his leg taken off above, instead of below, the knee.

## C A S E VIII.

June 11th, 1768, I amputated the leg of John Keighley, aged twenty-five years, above the knee, by a double circular incision, and dressed the stump with lint, digestives, a linen bandage, and woollen cap, as was at that time usual.

On the sixth day the superficial dressings were removed, and, I will venture to say, not without more pain to the patient than is now experienced during the cure. As this was the first limb I amputated, I have no doubt but my utmost efforts were exerted to effect a cure, which was accomplished in two months. This patient died hectic about a year after he left the hospital.

## C A S E IX.

About ten or twelve years ago I took off T. Tankard's leg above the knee, according to the directions given by Mr. Gooch in the sixty-fifth volume of the Philosophical Transactions. The stump was sooner healed, and a better one than I had before seen, by the circular incision, and I have reason to believe could bear pressure upon its end; for in one part it is now become

come considerably thinner, and so tender, that the man cannot bear the same pressure that he has been accustomed to do with ease. He is now under my care again, that I may direct some alteration in the artificial leg, or take some step to render his stump able to bear the usual pressure of the machine.

Having found that the bearing of the artificial leg is not at the top of the thigh, I have ordered the addition of a piece of tin to be well padded with a quilted lining, and have added, both before and behind, a broad strap, containing several short pieces of elastic wire. The straps fasten over the shoulders, and within, at the bottom of the boot, is an elastic cushion.

#### C A S E X.

In March, 1783, I pursued Mr. Alanfon's directions in taking off a boy's leg above the knee. The sloping incision through the muscles was made with the point of the knife. No retractor was used.

By having previously marked the dimensions recited in my former paper, the lips of the wound met with great ease: they were drawn together transversely, and united by four sutures and short slips of court plaster. Three ligatures  
were

were left out in separate parts, as suited their attachments.

A fine and new flannel circular bandage was applied, which also retained two long tow pledgets. The stump was placed upon a folded sheet, and in such position as seemed easiest to the patient.

When the stump was first dressed, which was on the fifth day, there was very little discharge or inflammation; on the tenth day all the ligatures, as well as sutures, were removed, and the wound very nearly cured. He was out of bed daily; and on the twenty-first day the cure was completed.

I first performed Mr. Alanson's operation from verbal directions, before he published on the subject; and from not having attended to the necessity of using the point of the knife, I cut through a small portion of the integuments — an accident that I have never since seen.

At that time we united the edges of the wound longitudinally, by which means the slit of the teguments, being at the most depending part, afforded me a convenient receptacle for all the ligatures, and the stump was thereby closed throughout its whole surface; but being done  
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by long plasters, instead of futures, the lips of the wound inflamed more than is now usual.

In a boy, whose leg I amputated at the same place, although the dimensions prescribed were not exceeded, the edges of the stump overreached, so as to require a little variation in the retentive means. Only short slips of court plaster and tow pledgets, retained by the flannel circular bandage, were used, without any futures. Such a contraction took place as prevented any obstacle from the surplus. In another case, the difficulty of retraction rendered the lips of the wound not so easy of access, and in that case two long slips of adhesive plaster, as well as the futures, were deemed necessary, and fully answered the purpose.

#### C A S E    X I.

October 14th, 1785, I took off the leg of Rose Balmforth, aged twenty-nine years, above the knee, with a flap. She was so reduced as to make it dubious whether she was able to undergo the operation; during which she fainted twice. The circumference of the limb exceeded thirteen inches, and was diseased so high as not to admit of a flap of sufficient dimensions.

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An allowance for the defect was accordingly made by the circular incision.

Being unable to elevate the flap, I formed it with a scalpel, though I prefer the catlin.

The cellular membrane was full of a gelatinous fluid, and the muscles seemed equally diseased. From the œdema of the whole limb the tourniquet failed to make that effectual pressure to be wished, which made it necessary for the operator to be expeditious; and, upon this occasion, my not using a retractor, and sawing through the bone quickly, were useful.

The arteries were of necessity more denuded, by drawing the ligatures, than was desirable, from their cutting through the diseased parts. I placed the lips of the wound in close contact, and they met with such facility, that the point of the flap over-reached above half an inch.

I ventured to pass only two ligatures, and supported the parts with long tow pledgets, from a want of confidence in a speedy union of the wound, and from an idea that the state of the parts would require digestion. An opiate afforded her a good night, and the next morning she was much better; but that evening a diarrhœa, to which she had been subject, returned with such violence, that her life was despaired of.

There was also a very great discharge from the stump.

Oct. 17th. She was a little recovered by the use of cordial astringents and anodyne medicines. The stump was dressed; and although the discharge was copious, and of a ferous kind, an entire inosculation had taken place at the sides where the futures were applied, yet at the apex of the flap it was not united, but had contracted, or rather the opposite edge was retracted by the flexor muscles, so as to leave an open wound an inch and a half broad. — A long and broad slip of adhesive plaster only prevented any farther retrocession. — From what has happened in similar cases, I have no doubt but an additional future would have been useful.

19th. In the evening, the diarrhœa returned with the same violence as before, and brought on such fainting and difficulty of breathing, that her death was hourly expected. The discharge still continued from the stump, and yet the adhesion went on well. Part of the ligatures were cast off. The adhesive retention was continued.

21st. The remaining ligatures and futures were removed.

28th.

28th. Although the wound was now reduced, so as to give her little trouble, yet there was still no disposition in it to heal, and she remained so extremely weak, that the other limb was become œdematous, and swelled to a great size; nor could she bear to sit up long together.

Nov. 12th. Her stump was perfectly cured; but she remained in the house for a week or ten days until she was able to be taken home.

On inquiry I found she recovered her strength; but in less than two years died consumptive.

This case shows clearly, that although the parts are in a very unsound state, and the habit so reduced as scarce to make an operation advisable, the flap operation is successful, and healing by the first intention suffers no material impediment; nay, to this plan I was confident the woman owed her life.

If we could promise that when the edges are allowed to separate we could afterwards bring them to approximate, I should less object to such a plan; but in general such an adhesion of the lips of the wound takes place as to prohibit such an attempt.

In one case I preserved the flap posteriorly; but great inconvenience happened from having made it too thick, especially as the thigh was

so large as to be fifteen inches in circumference. In another case I formed a flap at the inside of the thigh. In this instance, the parts where I made the circular incision were so diseased, that I found it necessary to adopt Mr. Gooch's direction to divide the muscles around the bone, in order to procure a sufficient retraction of the muscular parts. Both these stumps united well, and were cured in a month. In the latter case, ten days after the operation, a violent inflammation was brought on the stump by putting on a flannel bandage, which, by having been often washed, had lost its elasticity.

When the flap is made behind, the line of union falls too near the line of the bone, but before the cure is performed that alters.

## C A S E XII.

June 16th, 1783, I took off the leg of Abraham Sharpe, of about fifty years of age, above the ankle. The circumference of the limb in that line where the bones were intended to be sawed through was near ten inches. I marked a flap of about three inches and a half, which, as soon as the amputation was performed, was placed in immediate union by four futures. A like number of ligatures were placed over the edges of the

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the stump, in separate parts, nearest their attachment, and the intervening part of the lips closed by court plaster. The limb was placed on its side upon a folded sheet, with the knee a little bended.

The stump was not dressed until the sixth day; and the discharge was so little, that it did not require, at any time, dressing more frequently than every other day. At the second dressing the ligatures and futures were all removed, and the wound was of little consequence, being no more than what was occasioned by the ligatures and futures, a perfect and firm adhesion of the flap to the stump having been formed. The attachment was, however, still preserved by the application of a long slip of strong adhesive plaster as broad as the flap. I do not know that I ever saw a patient suffer so little; as he never would acknowledge that either during the operation or cure he had had any pain but what was very tolerable. From the day of his admission to that of his being discharged cured was exactly three weeks.

This man had for four years had a scirrhus tumour in his foot. An ulceration had lately taken place, evidently of a cancerous nature, but the disease appeared then to be entirely confined

fined to below the ankle. Within two years, however, he shewed me a large indurated gland on the uppermost part of the same limb, that increased very rapidly, and proved fatal.

In the whole course of my practice I do not recollect to have seen one instance of any long-continued success from the removal of a true ulcerated cancer. If in any case success might be expected, this seemed the most promising. The disease appeared to be entirely local; the patient's habit of body remarkably strong: he was regular and industrious, and resided in as healthy a situation as any in the county.

### C A S E XIII.

June 12th, 1788, James Hewit, aged seventeen years, had his leg amputated above the ankle with a flap, and the wound was perfectly healed in eighteen days. The limb was measured, the tourniquet bolster applied, and the patient's eyes covered, before he was brought into the operation room.

In forming the flap, the incision was made from above downwards. The division of the integuments, muscles, and all the interosseous parts, was made by the same catlin. No retractor was used, and of course the periosteum was not  
in

in any part injured above where the bone was cut through. In sawing through the bones, I directed the limb to be held low enough for the handle of the instrument to be sufficiently elevated for the saw to work obliquely. All the arteries were taken up with the tenaculum. Five ligatures became necessary, and as many futures, to retain the flap in contact with the stump. Court plaster was used as in the last case; and the parts met with the greatest facility. Two long tow pledgets and a fine new circular flannel bandage completed the dressings. The ease of the patient was consulted by directing his position in bed, and the limb was placed on its side with the knee bent. Neither opiate nor aperient medicine were indicated.

On the 17th, (the fifth day after the operation), the stump was dressed, and the discharge was greater than usual, which I attributed to the number of ligatures, as the boy had continued very easy; but this discharge had by no means impeded the attachment of the flap. For four days after this the stump was daily dressed, and after that time the discharge was so much abated as to render a dressing every other or every third day sufficient. In ten days all the futures were removed, and all the ligatures,

tures, except one, cast off. The flap continued to be supported by a broad slip of plaster, and on the fifteenth day the other ligature was easily removed. On the 29th the wound was perfectly cured.

Before the boy was discharged I took the dimensions of his limb. From his knee to the end of the stump measured eight inches and a half; the breadth of the flap near three inches; and what is rather singular, and in favour of marking the length of the flap, both that and the circumference of the limb continued exactly the same as before the operation.

Although in this case matter might be said to form, yet there was not any such copious discharge as either to produce difficulty in the healing of the wound, or to retard its cure. The speedy union of such strong muscular parts, in my opinion, removes the objection that has been made to such modes of operating. This boy could bear considerable pressure upon his stump for some time before it was cured; and the end of his stump is supplied with so thick a cushion, that it will not very soon by pressure be reduced so thin as if no such muscles had been reserved.

Mr.



Mr. Douglas, surgeon of the forty-fourth regiment, was present at this operation, and saw the progress of the cure; from which, as well as from having seen other similar cases at our Infirmary, he authorises me to add his testimony and approbation of such a treatment.

#### C A S E    X I V .

In the case of Isaac Hinchliffe, whose leg was taken off above the knee, I endeavoured to pursue the intention of Mr. Mynors \*; but as some variations had occurred to me, I tried them as I shall mention. — His dimensions were marked upon the limb, and a narrow slip of card, marked with half inches, was in readiness to measure with during the operation. I preserved the full quantity of integuments which he directs, by setting the strictures at liberty, close to the muscles, with the point of the amputating knife, which is much more expeditious than dissecting with the scalpel. An equal attention was paid to his direction relative to the quantity of muscular parts. No retractor was used. The edges of the wound met with the greatest ease. A circular bandage of fine Indian callico was applied, and the stump was dressed, after the position of

\* Practical Thoughts on Amputations. 12mo.

the patient was accomplished, with the tailed bandage, according to Mr. Mynors's rules in every respect, except one. It appeared to me that a separation in the edges of the wound must take place, unless a farther support was added; I therefore applied a long tow pledget over the dressings. — Although my directions for the patient to keep upon his side were strict, I generally found that he had shuffled more upon his back; and when I complained, he replied, that his present posture was easy. As his stump was not misplaced, I was less anxious to insist upon an alteration.

On the fourth day, at the first dressing, I found the stump much more open than we were accustomed to see it. The lips of the wound were near two inches asunder, and so firm an adhesion had already taken place, that, in future, little farther approximation could be obtained; hence the patient had not only more pain for many dressings, but also a broader cicatrix. The only advantage that I could observe was, that the ligatures came out a day or two sooner. I had no doubt but the stump would, in all respects, have been better, if a greater proportion of muscular parts had been saved, and the edges had been united by nature.

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The stump, in this case, did not appear to have an equal defence with those patients on whom we operate after Mr. Alanson's method; and if the stump grows thinner, no disadvantage can arise from forming a thicker cushion. Although it is not intended that any principal bearing should be on the end of the stump, yet the more we can give it the power of supporting this the better; and however it may be ridiculed by some, I have no doubt but there are many who have undergone the flap operation below the knee that can bear a great deal of pressure upon the end of the stump. But although I contend that such ability in a stump is to be wished for, I by no means recommend the bearing of an artificial leg to be principally upon the end of the stump; on the contrary, I think the limb near the affected part has been made to bear more than is necessary, and that the more the whole body can be employed in supporting and moving this artificial mechanism the better.

In an artificial limb below the knee, there should not only be a bearing below, but above the knee\*, and that again continued to the top of the

\* An artificial leg, for a patient whose limb had been taken off near the ankle, was found to receive great advantage from making the bearing not only below and above the knee, but

the thigh; and by spring shoulder straps, the upper parts of the body may be contrived to assist not only the support, but the motion of the limb.

The connexion between the artificial leg and the shoulder straps should be of the strongest Russian linen, which may be lined with callico.

For most of these hints I am indebted to Mr. Mann, a mercer at Bradford, who has been led to take great pains on the subject, from having a near relation who required such a machine. He has a most excellent mechanical turn, and I much doubt if any person has yet made an artificial leg to be compared with that invented by him. I have not seen any one except his where the artificial joint of the knee bends in walking, or where the patient can put his artificial leg in the stirrup with a bended knee in riding.

Mr. Mann makes it with an exact representation of each joint acting upon natural principles. Mr. Sharpe, and some of the most eminent surgeons in London, have seen his contri-

also on the hip; as well as from the addition of shoulder straps with strong circular straps. The weight of the leg and straps did not amount to two pounds, or nearly equal those that had been previously made on such occasions.

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vance, which is much lighter than the machines of this kind commonly made, and in every respect exceeds those I have examined that have been made in London, Edinburgh, or other places. He warrants it for seven years.

The cases I have selected were chiefly the result of consultation, and were open to the inspection of many strangers as well as pupils, who have universally acknowledged their satisfaction and approbation. Some of the latter have already informed me of the beneficial effects they have experienced from a similar mode of treatment in their own practice.

The more difficult the case is, the more, I think, a preference is due to this method: hence it becomes in a particular manner worthy the attention of military surgeons; and I am persuaded that if the rules and precautions I have laid down are duly observed, the treatment I have recommended will not fail to afford the most ample satisfaction both to the practitioner and the patient.

*Leeds,*

July 13, 1783.

II. *A Case of Hydrophobia.* By Mr. James  
Ruffel, *Apothecary in London.*

ON the fifteenth of November, 1787, about eleven o'clock in the evening, I was desired to visit Francis Stanier, of Castle Street, Piccadilly. I found him in a state of great anxiety, and extremely restless, with a quick and small pulse, and complaining of considerable oppression about the præcordia.

The account the patient gave of himself was, that he was about sixty years of age; that he had had an ulcerated leg for the space of six years, which had healed towards the close of the year 1786; and that since that period he had been afflicted with rheumatism, and unable to follow his occupation, which was that of a smith; that for two or three days past he had felt violent pain in his left leg and thigh, which he had thought might be owing to his having cut some corns on his left foot; and that the day before I saw him he had found himself so ill, that he had been obliged to go to bed, and had not quitted it since.

Upon my asking him if he had felt any inclination to vomit, he started up suddenly, and, reaching for the pot before he answered me,  
said,

said, " No, but that he then wanted to vomit," and, after several efforts, brought up a little mucus.

It appeared that he had taken no nourishment during the course of the day, and I was told that he had attempted to drink a little purl in the afternoon, but without being able to succeed. On receiving this information, I desired that some table beer might be offered to him. To this he seemed to be extremely averse; but, yielding to entreaty, he took a cupful of beer in his hand, and, after making several attempts to bring it to his mouth, at length threw it from him in a state of the greatest agitation.

This aversion to liquids, and the marks of horror he had displayed on being pressed to drink, struck me so forcibly as symptoms of hydrophobia, that, although I could not find, from my inquiries, there was any reason to believe he had been bit by any animal, I called upon Dr. Simmons, and mentioned to him my ideas of the nature of the case.

The patient that night was directed to take a bolus of musk, thebaic extract, and cinnabar of antimony. This he swallowed, though not without extreme difficulty. A clyster was also administered;

administered; and while this was doing he was observed to be excessively agitated.

The next morning (Nov. 16) I was informed he had had a pretty good night; that his stomach was composed, and that he had had an evacuation by stool; but as yet had not been able to drink any thing.

At breakfast time the master of the house in which he lodged brought him a hot roll buttered, and a basin of tea. He ate almost the whole of the roll rather greedily, but pushed back the tea, crying out at the same time that it would be death to him to drink.

Dr. Jackson, who saw him this day, about noon, found him walking about his chamber, and observed that he answered sharply, and with great marks of agitation, when it was proposed to him to try to drink; but, upon being soothed and reasoned with, the patient was easily persuaded to try to take any thing that might be thought likely to relieve him, and did accordingly swallow several spoonfuls of a mixture prescribed by Dr. Jackson, consisting of camphorated julep, Hoffman's anodyne liquor, and the cordial confection. His pulse at this period beat about an hundred strokes in a minute; his



his skin felt rather cold. The state of his tongue was moist and natural.

About eight o'clock in the evening Dr. Jackson was met by Dr. Simmons, to whom I had written a note, informing him that the case appeared now to be a confirmed hydrophobia. The patient, at this period, complained much of spasm at the upper part of his throat, which attacked him whenever he attempted to lay his head low, and obliged him frequently to raise it. His pulse was still of the same degree of quickness as at noon, and it was regular and of its natural fulness. His tongue was still pretty clean, except at its basis, where it was slightly furred. The state of the fauces was examined; but in them no particular appearance could be discovered.

Timidity was strongly marked in his countenance: he seemed to shrink within himself; frequently grasped the bed clothes; and when any mention was made of liquids, became suddenly agitated, and, with a voice expressive of distress and anger, begged us not to ask him to drink. At this time he complained of a sensation in his throat, which he compared to strangulation, and which occasioned him to press

the external sides of his fauces with his thumb and fingers.

Notwithstanding the distress he laboured under, he was prevailed on to try to get down another spoonful of his mixture; but he observed to us at the same time, that he knew it would be impossible for him to swallow it unless he got out of bed. Accordingly he got up, and a table spoonful of the medicine being poured out, he took the spoon in his hand, trembling excessively, and putting it suddenly to his mouth, threw his head back, and, apparently with the utmost difficulty, swallowed some of the medicine. His general agitation, the wildness of his countenance, and tremor, were, for a few seconds, much increased.

He now sat down on the edge of the bed, much agitated, and when he was a little more composed, it was proposed to him that he should put one of his hands into a basin of water. His agitation evidently increased at the mention of this; but, upon being told that it might perhaps be of use to him, he consented to try. A basin filled with water was accordingly brought to him; but the moment his hand touched the water he snatched it back with marks of so much horror, that it was impossible

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ble just then to press him to the repetition of an experiment productive of such evident distress.

About eleven o'clock the same evening the two physicians again visited him, accompanied by Mr. Hunter and Mr. Everard Home. The patient was then in bed, apparently settled for the night. He seemed not to like to be disturbed, and appeared, as he had done before, to be extremely timid and agitated; but, upon being a little more accustomed to his visitors, and spoken to in a soothing manner, he became more composed, except upon particular topics, and these only such as had a relation to fluids. He complained that speaking brought on the uneasy sensation, he had before spoken of, in his fauces; and it was observed that he seemed most affected by speaking when he had raised himself a little from the bed.

He now replied to a variety of questions very deliberately and sensibly; talking, at last, with much composure even of liquids, when not connected with the idea of drinking. The idea of solids did not disturb him so much.

He said he was hungry, and should relish food, if he could swallow it with ease. The drier the food was the better, he said, he liked it;

but the eating even some dry bread that was offered to him seemed to require a considerable degree of resolution, a sort of affected bravery, to get it down; and he appeared to chew it longer than he would otherways have done, but at last swallowed it tolerably well, considering it was dry.

It was proposed to him that he should try to swallow some jelly, and to this he readily assented. Some currant jelly was accordingly procured, and of this he twice swallowed a little, but evidently with much more difficulty and repugnance than he had shewn in swallowing the bread; for we observed that he snatched up the spoon and carried it to his mouth in a hasty manner, as if he had been summoning up resolution to do a thing that was painful and difficult. When he had taken of it twice in this manner, he put the remainder by, saying he would keep it till the next day.

He was asked to describe what he had felt upon putting his hand into cold water. He said it had felt to him colder than common, and had thrown instantly a sensation of cold over his whole body, which seemed to fly to the upper part of his throat. He had no soreness, he observed, in his throat when he swallowed,  
but

but a horrid sensation he was unable to describe, and any chance of bringing it on threw him into great agitation.

When asked whether he liked water or brandy best, he said brandy, because it was more palatable ; but he observed that any thing liquid produced the uneasy sensation, before mentioned, in his throat the moment it touched his lips. He observed also that the approach of any liquid was more offensive to him when warm than cold, for the very steam offended him, and would bring on the uneasiness in his throat before he wetted his lips. This accounted for the repugnance he had shewn to the bason of tea in the morning.

He spat very often, and seemed averse to swallowing his saliva, which was small in quantity and viscid.

I had before endeavoured to learn whether there was any probability of his having been bit by a rabid animal ; and the patient himself was now questioned on this subject, but in such a cautious way as seemed the least likely to excite in him any suspicion relative to the motives for the inquiry. He told us that in the early part of his life he had been two or three times bitten by dogs in the hand, but he was certain  
that

that nothing had been the matter with any of the dogs, as he had known them all long afterwards, and that the last time he had been bitten was at least thirty years ago.

When we quitted him about midnight, it was agreed that he should take a bolus, composed of conf. Damocr. ʒij. and of opium gr. iſs., and continue the use of his mixture. When my servant carried these medicines to him, he found him making violent efforts to vomit, and pressing, at the same time, with his hands, each side of his throat. He likewise complained much of wind in his stomach, and was greatly agitated. He soon, however, became more composed, and was prevailed on to take the bolus, but not the mixture. He observed that the bolus felt warm and comfortable to his stomach, and made him belch. Soon after the straining to vomit he ate a piece of bread rather voraciously. In the course of the night he slept a little; and the next morning found himself better, and thought he could drink a little purl.

At half past eleven o'clock (Nov. 17) he was again visited by myself and the other gentlemen who had seen him the night before. We found him dressed, but lying on the bed covered with a blan-

a blanket. Soon after we had entered the room he got up, and sat on the side of the bed, telling us at the same time that his throat was better, and that he was now able to drink. He had asked for some purl before we came to him, and about a quarter of a pint of it still remained in the pot. This he drank in our presence, but it seemed not to go down without some difficulty, and his countenance shewed that he felt himself happy when he had swallowed it. It was remarked, however, that he did not seem to be so much agitated when we talked of drinking, and of liquids, as he had been the night before, and his saliva was thought to be less viscid.

When we had conversed with him a little while by the bed side, he got up, and walked towards the table, to let us see that he could now put his hands into cold water. This he accordingly did, and then wiped them dry with a towel. The water, he said, still felt very cold, but not so disagreeably so as it had done the night before. In doing all this, however, he did not seem to be perfectly at his ease, and it was observed that he was much weaker than at our last visit. His pulse was so small as to be with difficulty felt, and so irregular as to vary  
from

from 80 to 100 strokes in a minute. His tongue was moist, but whiter than it had hitherto been, and his eyes had a glossy appearance, as if covered with mucus.

About an hour after we had left him, as he was sitting by the fire, he desired the person who was with him to give him some jelly; but before this could be handed to him he fell from the chair, and Dr. Simmons, who came into the room immediately after, saw him expire in the course of a few minutes.

The body was examined the next morning by Mr. Hunter, in the presence of the other gentlemen who had attended him. It was found to be uncommonly rigid. The sternum was removed, and the œsophagus carefully exposed throughout the whole of its extent. The state of the fauces, trachea, and stomach, was also accurately examined.

In the cavity of the stomach some bile was found, together with a small quantity of some other fluid. The inner surface of this viscus was covered with a tough mucus, and near the entrance of the œsophagus were to be seen a few dots of extravasated blood.

In the œsophagus there was no morbid appearance, if we except a thick mucus, which  
was



was here rather in clots than lining the inner surface of the œsophagus as it did that of the stomach. At the lower part of the œsophagus this mucus was tinged with a greenish bile.

The gall bladder was very full of bile, and the colon and intestines in general were much distended with air.

This case, it is presumed, may be added to the small number of instances of spontaneous hydrophobia recorded by medical writers. Of those instances there is one published in the *Memoirs of the Royal Medical Society at Paris*, which so nearly resembles the one I have been relating, that I am persuaded the reader will excuse my mentioning it briefly in this place.

The case in question occurred to M. Bonafos, Physician at Perpignan\*. The patient was a maid servant, thirty years old, who was seized with symptoms of fever, and on the fifth day of her illness with hydrophobia, although no bite had preceded this symptom. She complained of her throat, and of a difficulty of swallowing; but no appearance of inflammation could be discovered in the fauces. The dread of liquids

\* *Memoires de la Société Royale de Medecine. Années 1777 & 1778. 4to. Paris, 1780. p. 457.*

soon became so great, that, although naturally of a mild and quiet disposition, she became irritated, and had violent convulsive motions when pressed to drink. She was able, however, to swallow bolusses of camphor and opium, and submitted to the use of clysters; but these remedies were ineffectual. The agitation and spasms increased in violence; and her pulse, from being full and somewhat hard, became small, unequal, and even intermittent. At length, on the seventh day of the illness, and the second from the commencement of the hydrophobia, the patient rose up suddenly in her bed, in a state of violent convulsion, and the moment after fell back dead.

*Swallow Street, Piccadilly,*

July 17, 1788.

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III. *An Account of the successful Termination of a Case attended with Symptoms of Phthisis Pulmonalis; with Remarks on the Treatment of that Disease. By William May, M. D. Physician at Truro in Cornwall.*

**I**N the month of December, 1786, I was desired to see a young woman, who was said to

to

to be in an advanced stage of pulmonary consumption. She was about eighteen years old, had not menstruated, and possessed that narrow conformation of chest, with high shoulders, a long neck, fine skin, and white teeth, together with the circumscribed redness of the cheeks, and other general appearances indicating a predisposition to phthisical affection, and was born of scrophulous parents.

I found her labouring under every symptom which can be supposed necessary to characterize a true phthisis pulmonalis; but, lest the propriety of this conclusion should be doubted, I will here briefly enumerate the particular circumstances of her case with as much accuracy as an imperfect recollection of the exact series in which they happened will allow.

About eight or ten weeks before I saw her she was first seized with a cough, which, in the ordinary way, was supposed to be merely catarrhus: it was without expectoration, extremely urgent, and from time to time accompanied with slight pains affecting the thorax, but confined to no particular part of it. She had also, at that period of the disease, complained occasionally of irregular rigours, followed by heat and flushing of the face.

L 1 2

After

After a few weeks passed away in this manner, the symptoms, by slow degrees, growing more and more troublesome, a frothy mucus was expectorated, which was sometimes tinged with blood. In a short time this hæmorrhage from the lungs became more considerable, and recurred pretty regularly at the stated period of four or five days. It was constantly preceded by the symptoms which Dr. Cullen has taken notice of in his nosological character of hæmoptysis\*, viz. “genarum rubor; molestiæ aut doloris, & aliquando caloris, in pectore sensus; dyspnœa; titillatio faucium.” These symptoms, produced by the hæmorrhagic effort, were always relieved by the ceasing of the hæmorrhage, and in the intervals between these attacks the same kind of mucous matter as has been described above continued to be expectorated. At length the matter expectorated increased considerably in quantity, and put on an evident appearance of purulency, and the symptoms of pyrexia became more strongly marked.

It was at this period of the disease I first visited the patient. She was then in a state of extreme debility, and was exceedingly ema-

\* *Synops. Nosol. Method.* 8vo. Edia. 1785. Tom. II. p. 156.

ciated. The noon and evening exacerbations of true hectic fever, with profuse night sweats, recurred in a very regular succession. The belly was sometimes costive, and frequently affected with profusely colliquative discharges, which seemed to lessen, while they lasted, the discharge by the skin: indeed I never saw the consent between the surface of the body and intestines so clearly pointed out as in this case, in which these different conditions regularly alternated with each other. The pulse was irregular in point of frequency, but invariably above 110: sometimes, especially before the hæmorrhage, full and hard, but at other times small and extremely weak. The matter expectorated, which was now in considerable quantity, submitted to the more common criteria, as well as to those recommended by Dr. Brugmans\* and the late ingenious Mr. Charles Darwin, appeared very satisfactorily, and beyond all doubt, to be of a purulent nature. Her nights were restless, and anxious, her breathing laborious and painful, and, if kept out of bed but a few hours, her legs became œdematous. She had the pearly

\* *Dissertatio Inauguralis* Gotting. edit. auct. D. Brugmans, Botanices Leidæ Professore, de Puogenia, 1783.

whiteness of the tunica adnata of the eye, the adunque incurvated form of the nails, with the defluxio capillorum which Sydenham, Dr. Cullen, and all other writers, have considered as certain diagnostics with respect to the disease.

Under these circumstances, contrary to the more general practice in phthifical cases, of relying on antiphlogistics, demulcents, and expectorants, which I consider not merely as an inefficacious, but as a dangerous method of treatment, the indication of cure upon which I proceeded was to remove the hectic paroxysms by obviating the debility of the system upon which they depend, and which, in my opinion, is to be considered as the sole proximate cause of this formidable disease\*.

The means adopted for this purpose were, first, small doses of thebaic tincture exhibited at night and in the morning, and in the mean time a diet of the most nutritious kind was di-

\* This opinion of the proximate cause of phthisis is not a singular one. Dr. Kentish, in his inaugural Dissertation on this subject, printed at Edinburgh in 1784, has the following words: — “ Si causa proxima ea sit qua sublata tollitur morbus, ex causarum remotarum iusta contemplatione hujus morbi causam proximam existere debilitatem non possumus non judicare.”

rected. Soups of all sorts, and, if the appetite called for it, even solid animal food, with liberal portions of wine, were allowed her. For her common drink she was ordered to use porter, or brandy and water. In the space of about a week an emetic of ipecacuanha was exhibited, and afterwards the bark in substance.

This method was persisted in with evident advantages for some time, with such little variations only of regimen or medicines as either the occurrence of anomalous symptoms or the state of her appetite required. It must be remarked, however, that soon after the exhibition of the bark, the patient began to feel a pain at the stomach, accompanied with nausea. To obviate these complaints, the use of the bark was suspended, and another emetic administered, by the operation of which a quantity of palpable powder of bark was rejected, made into a firm mass with a glutinous viscid matter in the stomach, the evacuation of which entirely removed the troublesome symptoms before mentioned.

Among the articles of diet which she was most in the habit of using must be mentioned eggs and oysters; the latter of which she desired with much avidity, and ate in large quantities

tities either raw or roasted, with pepper and other condiments.

The attacks of hæmoptysis recurred with less frequency and violence, and at last disappeared altogether. Still, however, the expectoration of pus, with febrile accessions, and much debility, though all in an evidently less violent degree, continued to harrass the patient, who, notwithstanding she had been now three months confined, bore her illness with wonderful resignation and fortitude. Every part of the tonic plan of treatment was continued, and, in addition to what has been already related, the exercise of swinging was directed, which was performed by means of a chair suspended by cords near the bedside of the patient, when her strength would not allow her being taken out of the room in which she had been confined. This was used twice a day, for the space of a quarter of an hour at a time, and it never failed to produce a diminution of the frequency of the pulse, and an alleviation of that general sense of oppression under which she constantly laboured.

In the course of the disease the emetics had been repeated with evident advantage, and the doses of thebaic tincture increased to forty or fifty



fifty drops three times a day: the bark was also given in a liberal quantity. In short, the strengthening plan of treatment, which was adopted in the most extensive meaning of the term, and most sedulously practised, produced, in the end, the most flattering success. The expectoration lessened by degrees, and at length, with the febrile symptoms, totally disappeared. The patient grew stronger as these left her, her appetite became excellent, the colliquative discharges disappeared, and, with the assistance of horse exercise, she at last recovered entirely, and is now in an excellent state of health.

## REMARKS.

The case I have just recited suggests some obvious remarks, and I imagine the happy event of a method of cure so very opposite to the ordinary mode of treating consumptive cases is calculated to afford considerable information and improvement. If it should be objected to this opinion, that from an individual case we are not licensed to make general conclusions, it may be answered that this is by no means a solitary instance, and that even in the writings of Celsus we may find sanction for the practice here recommended. — “Cibi vero,” says this

elegant and experienced author, “esse debent  
 “ex his qui facile concoquuntur, maximeque  
 “alunt; ergo vini quoque necessarius usus  
 “est\*.”—Had Celsus known the virtues of  
 opium and the Peruvian bark, who can doubt  
 but that, with the ideas of this disease, which  
 the opinion quoted above necessarily argues, he  
 would have laid particular stress also on the use  
 of these excellent remedies.

The practice of bleeding, and every part of  
 the antiphlogistic plan of treatment, has so ge-  
 nerally obtained, that it is scarcely necessary for  
 me to take notice of the common opinions with  
 respect to the nature of this formidable com-  
 plaint, which must have given rise to this prac-  
 tice; nor would it be decent for me to endea-  
 vour to point out its pernicious tendency. The  
 frequent and almost uniformly unsuccessful ter-  
 mination of diseases of this kind, under the or-  
 dinary methods of treating them, I should ima-  
 gine would alone have been sufficient to deter-  
 mine that the practice was erroneous, and, in-  
 dependent of all theoretical disquisition, to have  
 induced practitioners to try some opposite me-  
 thods, however unsupported by hypothetical rea-

• De Medicin. Lib. iii. cap. 22.

soning, or inconsistent with the most common theoretical notions about the disease in question. But when it is considered that the most rational ideas which can be collected from all pathological writers on the subject, and the most common opinions which obtain respecting it, not only favour, but lead directly to, the tonic plan of treatment, and no other, and that the use of the opposite methods is directly incompatible with these opinions, it appears truly wonderful that the former should have ever been neglected, or the latter method ever have been adopted. The limits prescribed to me by this method of publication will not allow me to go at large into the reasoning I might adopt in support of the opinion, that there can exist no case of idiopathic phthisis in which bleeding, or any part of the antiphlogistic regimen, must not be improper. Dr. Cullen, whose skill and experience no one will doubt, seems to have set this matter, in my opinion, beyond all controversy: and though it is a truth which I cannot deny, that this venerable and most respectable Professor, when treating of the disease from the chair, in the University to which he does so much honour, seems to favour, under particular circumstances, the use of the lancet, yet I maintain that such prac-

tice is in direct opposition to the principles he has laid down in his publications. This must be obvious on the most superficial observation; witness the character of the disease given in his Nosology, the principal parts of which are, “*Corporis emaciatio & debilitas, cum expectoratione purulenta* \*.” — If this is true, and it is a fact too notorious to admit of the smallest doubt, can bleeding and the antiphlogistic regimen make any part of a rational indication of cure? It is repugnant to common sense to suppose it.—But, say the advocates of the extenuating plan, however appearances may indicate the contrary, there is certainly present in all consumptive cases an inflammatory diathesis, which must be obviated by antiphlogistic means. Let us compare this inflammatory condition of the system, so properly described by Dr. Cullen in his First Lines of the Practice of Physic, with the character of this disease already quoted from his Nosology.—“I define the phlogistic diathesis,” says he, “to be an increase of tone and contractility of the whole arterial system.” — Is there then the least analogy between an em-

Synopsis Nosol. Method. Tom. II. p. 158.

ciation,

ciation, with debility of the body, and this state of tone and vigour of the system?

Waving, however, farther arguments on the theory of the disease, I shall return to the more immediate purpose of this publication, viz. the statement of some facts calculated to establish the necessity of a cordial and nutritious method of treatment in cases of pulmonary consumption.

Dr. Kentish, in his valuable Dissertation on this subject, already referred to, has strongly recommended tonic remedies, and a nutritious diet, and, among other instances of their good effects, has related the following remarkable case:—"Unus ex amicis meis, Raius Beckwith, quum febre hectica, tussi violenta, exscreatione purulenta, sudoribus colliquativis diu laborasset; *dieta parca lactea sine fructu*, tandem, contra medici consilium, victu pleniore, ostraeis, Falerno, & cerevisia, usus est; symptomata maligna disparuerunt, feliciterque convalescebat."

Dr. Mudge also, in a Dissertation on the catarrhus Cough, published some years since, has mentioned an instance of complete cure of phthisis, which deserves to be taken particular notice of on many accounts. — A man was admitted into

into St. Thomas's Hospital with every symptom of pulmonary consumption. He became a patient of Sir Edward Wilmot's, and was subjected to the common plan of treatment in such cases. The man growing worse, all hope of his recovery was relinquished, and the nurses seem to have been directed to make the little remains of his life as comfortable as possible, by administering some wine to support his exhausted strength, and opiates to alleviate the cough which harrassed him. Under this alteration of method the patient, to the astonishment of all who saw him, grew better, and, after a long state of convalescence, was at last discharged from the hospital perfectly cured. This case strongly corroborates the opinion I have offered with respect to the treatment of consumptive cases; and, farther, it furnishes us with a fact of considerable importance in the history of this alarming malady, viz. that it is not incurable: a fact which we cannot take too much pains to ascertain, establish, and inculcate. An elegant writer has very justly observed in his publication on the duties and offices of Physicians, that "to pronounce a disease incurable is often to make it so;" and cautions practitioners against making a gloomy prognostic, which can only, by inducing

inducing anxiety and despondency in the patient, aggravate the disease, without the possibility of producing a single advantage, except the trifling one of saving his own credit with respect to the event : but this can always be effected in a manner equally safe, and infinitely more proper.

Having carried these general remarks as far as it may be allowable in this place, I shall make a few additional observations on the case which has been the more immediate subject of this paper. I imagine it will be obvious that the hæmoptysis which preceded it was the *hæmoptysis ex tuberculo pulmonum* of Sauvages, or that which Dr. Cullen has described under his third species : viz. “ Hæmoptysis phthisica, post tussim cum  
“ macie & debilitate diuturnam \*.” Consequently no doubt can exist of the case here recorded having been a true phthisis pulmonalis, which, if not an idiopathic disease, (and I am not clear that it is so in any case) was very evidently the consequence of an original scrophulous diathesis.

The effects which the Peruvian bark produced, as it was first administered in substance,

\* Synopsis Nosol. Method. Tom. II. p. 157.

deserve to be taken notice of. The accumulation of the powder in the stomach has not unfrequently happened under a debilitated state of the digestive organs, and has been the cause of great uneasiness in all the instances I have heard of. Owing to this circumstance, emetics and cathartics have generally been recommended antecedent to the use of the bark; but as it often happens that the condition of persons for whom the bark is necessary is such as will not admit of vomiting or purging with safety, in order to obviate this disagreeable effect, I would advise the cold infusion of this medicine with calcareous earth, as described and recommended by Dr. Skeete. This preparation was used in the progress of the disease with manifest advantage, and in a number of other cases I have seen as good effects produced by the bark administered in this form as could have been expected from the substance itself.

Vomiting, however inconsonant it may appear with the reasoning I have attempted, is certainly to be considered as a useful remedy in the treatment of pulmonary cases. Full vomiting, however, though it must eventually debilitate, does, by a primary operation, give tone, vigour, and excitement, both to the stomach and



and the system at large : if, therefore, the excitement which it occasions is sustained by a judicious exhibition of stimulants and tonics immediately upon the ceasing of the emetic operation, how efficacious repeated vomits must be in these, and all other cases of debility, must be obvious to every man. In phthical affections especially they are calculated to be of the utmost utility as expectorants, and, in my opinion, there is scarcely any other medicine to which this term can with propriety be applied. By the action of the diaphragm and intercostal and pectoral muscles, as in the effort of vomiting, together with the compression of the air in the cavity of the lungs by the shutting of the glottis, which necessarily happens, expectoration is more effectually promoted than by any other means I am acquainted with.

Although in the case of this patient, from the fulness and hardness of the pulse, with the flushing of the face, preceding each hæmorrhage from the lungs, bleeding may appear to have been indicated, I am persuaded that neither in this, nor any other instance of the kind, it would have been proper to use the lancet. It is true that drawing blood may, by lessening the plethora of the lungs, give a species of temporary relief ; but it is indeed a most fallacious species,

and can never fail to aggravate, by an ultimate and unavoidable operation, the very symptom it seems calculated to remove.

If, from any thing I have here delivered, it should appear that the ordinary method of treating phthical affections is erroneous, and an opposite plan, which, in the above instances, has been accompanied with such excellent effects, should obtain a fair trial, and be found extensively useful, I shall feel myself happy in the idea of having contributed something towards the improvement of medical science, and the benefit of society at large. Independently of all hypothesis on the subject, the practice I have here recommended has the best arguments in its favour; namely, the constant failure of the opposite practice, and the successful termination of a few, at least, of those cases in which it has hitherto been adopted. Let it have a candid trial, and stand or fall by the test of repeated experience. No one will accuse a practitioner of temerity for proceeding on these grounds: he will not add to the opprobrium which this disease has brought upon physic, even should the event of his trials be generally unfortunate; neither ought he to conclude, though this should happen to be the case, that the method of cure he has adopted is, therefore, wrong, but to attribute his failure

lure

lure either to his own improper management of the remedies employed, or to the invincible nature of the disease. With respect to the latter, however, I agree with the late Dr. Gregory, that no disease ought to be considered as incurable. — This declaration cannot bring upon the profession the charge of arrogance; because we must, at the same time, confess that there are diseases which we do not know how to cure. I am extremely willing to believe that the phthisis pulmonalis is not among this number, and am happy to be able to corroborate this opinion by a quotation from our English Hippocrates, (whose authority is second to that of no man among the ancients or moderns) expressly to this purpose — “ Quantumcunque exitialis phthisis et fit et audiat, utpote qua intereunt duo fere trientes eorum quos morbi chronici jugulant; hoc tamen sancte assero, quod neque mercurius in lue venerea, neque cortex Peruvianus in intermittentibus efficaciores extent, quam in phthifi curanda exercitium jam laudatum \*.”

*Truro,*

July 19, 1788.

\* Vide Sydenhami opera, 8vo. Londini, 1705. p. 383 and 384, where he is speaking of the efficacy of riding on horseback in the cure of phthisis.

IV. *A singular Case of Diabetes, consisting entirely in the Quality of the Urine; with an Inquiry into the different Theories of that Disease.*  
By Thomas Cawley, M. D. late chief Surgeon to the Forces in Jamaica.

**A** LLEN HOLFORD, Esq., aged thirty-four years, strong, healthy, and corpulent, accustomed to free living and strong corporal exertions in the pursuit of country amusements, in December, 1787, was seized with diabetes; but the cause of the great degree of emaciation and debility which gradually came on was not discovered until March 20th, 1788, at which time his urine was found to be sweet, fermentable with yeast, and two pounds, on evaporation, yielded about five or six ounces of sweet black extract, exactly resembling that preparation of melasses made by confectioners for children, and vulgarly called *coverlid*.

Within the above-mentioned period the quantity of urine evacuated was never observed to exceed what is usual in health, or to be disproportioned to the ingesta, though the state of it had been frequently inquired into, and even the quantity of liquids drank and voided measured. For these reasons the quality of it was not suspected

pected until it became inconceivable, considering the quantity of aliment taken in, how such a degree of exhaustion could ensue, unless the body was drained by the quality of what was rejected as apparently excrementitious.

Variety of medicines, the usual consequence of inefficacy and despair, were successively administered. Decoction of bark with vitriolic acid and alum, with astringents and aromatics, with chalybeates, with *sacc. saturni* and opium, and with cantharides, together with cold bathing in salt water, were the principal means used, and at first had a very good effect; but soon afterwards every medicine disagreed with the stomach, and the patient gradually sunk and died on the 18th of June.

The disease was at first attended with severe pain in the rectum, caused by piles, and all the while a considerable degree of costiveness, the usual cause of hæmorrhoidal affections, prevailed. For some time before his death slight hectic symptoms appeared: his thirst became intolerable; his mouth and fauces very clammy; his tongue deeply chapped; his skin dry and scaly; and his appetite, which at first was tolerable, gradually diminished, and latterly was changed into an aversion even of a sight of solid food.

food. His only support, therefore, in this stage of the disease, was derived from a plentiful supply of nutritious liquids.

About this time, when he voided urine, he usually applied his hands to the hypochondria, and expressed a sensation of sinking, as if the urine came from those parts.

Within the last three days of his existence the quantity of urine was considerably increased, the power of retention much diminished, and his right arm was frequently agitated with convulsive motions for a few minutes, and then became steady. Delirium and convulsions closed the scene.

Notwithstanding this progressive increase of fatal symptoms, the only apparent cause, the saccharine matter in the urine, daily decreased in proportion, and latterly two pounds yielded only an ounce and a half, whilst the quantity of urine evacuated seldom exceeded four or five pounds in twenty-four hours, and had changed from a very light straw colour to one deeper and more natural.

#### *Appearances on Dissection.*

The kidneys were of the usual size, but appeared to me to be rather paler and softer than  
what

what is natural; when opened longitudinally through the pelvis, nothing preternatural was discovered.

The liver was much wasted. It was externally of an ash colour, or nearly like pipe clay, and its consistence was very plastic, or like an œdematous tumour, which might be moulded, like dough, into any shape. It was perfectly free from any scirrhous or steatomatous tumours taken notice of by Dr. Mead, and, when cut into, exhibited its usual colour.

The gall bladder contained its accustomed quantity of bile, and adhered to the mesocolon.

The pancreas was full of calculi, which were firmly impacted in its substance. They were of various sizes, not exceeding that of a pea, white, and made up of a number of lesser ones, which made their surface rough, like mulberry stones; and in all respects they appeared analogous to the calculi which we sometimes meet with in the salivary ducts. The right extremity of the pancreas was very hard, and appeared to be scirrhous.

No other marks of disease could be discovered in the abdomen, and the contents of the thorax were perfectly sound.

*Obfer-*

*Observations and Experiments on the Urine and  
Extract.*

There was no oiliness on the surface of the urine; when fresh, it had a very faint sweet odour; and when kept two or three hours in a close warm place, it began to smell sour. During evaporation a slight urinous odour was diffused; but this was scarcely perceptible in the extract, and in some parcels of it not discernible.

EXPERIMENT I. A small quantity of urine, set by in a phial, spontaneously entered into the vinous, and then into the acetous fermentation, discharging a great quantity of mephitic gas. A white cloud formed in the center, which gradually fell to the bottom in the form of a white precipitate. In short, the whole of this experiment corresponded with Dr. Dobson's\*.

EXPERIMENT II. Vitriolic acid poured into the urine caused no change; neither did fixed alkali, when added to it, excite any pungent odour. This proves that the urine contained very little or no ammoniacal salt, as the fixed alkali, by decomposing it, and setting the vo-

\* Medical Observations and Inquiries, Vol. V. p. 303.



fatile alkali at liberty, would have excited a pungent smell.

EXPERIMENT III. A small quantity of the extract put into water dissolved very rapidly.

EXPERIMENT IV. A small quantity of the extract put into spirit of wine neither dissolved nor communicated any colour to it, but immediately became very hard and brittle.

It appears, by the last experiments, that the extract consists of sugar united with gummy or coagulable matter, all which ought to remain in the body for its support, and that little of what is excrementitious passed through the kidneys but superabundant water, the vehicle of this nutritious matter.

Healthy urine yields, on evaporation, more or less of coarse black or brown extract; but this extract has a strong urinous smell, deliquesces when exposed to the atmosphere, and is soluble in spirit of wine, being in its nature saline and saponaceous, and entirely excrementitious\*.

As the analysis of urine does not seem to have been properly attended to by writers on the diabetes, I think it necessary here to enter more fully into it than has hitherto been done. This

\* Vide Journal de Medecine, Nov. 1773 & Avril 1777.

I shall do in the words of a late celebrated writer\*.

“ A mesure que l’urine s’évapore, elle prend  
 “ une couleur de plus en plus brune & foncée,  
 “ par le rapprochement de la partie savonneuse  
 “ extractive qu’elle contient. Les premiers  
 “ cristaux qu’on obtient, sont l’espèce particu-  
 “ lière de sel connu par les chimistes sous les  
 “ noms de *sel natif ou essentiel de l’urine, sel fu-*  
 “ *sible de l’urine, sel phosphorique, sel microcos-*  
 “ *mique.* C’est celui qui contient l’acide pro-  
 “ pre à faire le phosphore. Il y a une partie de  
 “ ce sel qui est à base d’alkali volatil, & qui est  
 “ par conséquent de nature ammoniacale; l’au-  
 “ tre partie est à base d’alkali fixe minéral.

“ En continuant l’évaporation & le refroi-  
 “ dissement alternatifs, on retire successivement  
 “ de l’urine les autres sels moins cristallifables  
 “ qu’elle peut contenir, mais principalement le  
 “ *sel commun,* ou le sel febrifuge de *Sylvius,* dont  
 “ elle est toujours abondamment chargée. On  
 “ retrouve aussi tous les sels neutres qu’ils ont  
 “ pris, soit par la voie des alimens, soit autre-  
 “ ment.”

\* Macquer. Dictionnaire de Chimie. 4to. Tom. II.  
 p. 645.

From this analysis it appears that healthy urine contains a variety of saline matter, the principal of which are the following: — Phosphoric salt, or salt composed of phosphoric acid and vegetable, mineral, or volatile alkali; common salt; and the febrifuge salt of Sylvius, or salt composed of marine acid and vegetable alkali. — As phosphoric acid and volatile alkali are generated in the body, we may easily suppose the following chemical decompositions and attractions to take place: — The common salt taken in with the aliment is decomposed by the phosphoric acid, which unites with its alkaline basis, and forms one species of the fusible salt of urine: the marine acid, now at liberty, unites with the vegetable alkali taken in with our aliment, and forms the salt of Sylvius; and the superabundant phosphoric acid, uniting with the volatile alkali, forms the ammoniacal phosphoric salt. The quantity of these salts must be variously proportioned, according to the quantity of aliment taken in, the quality of it, and the intervals of repletion.

Hence it appears probable that the want of saline matter, or ammoniacal salt, so much talked of, in diabetic urine, proceeds from a deficiency of phosphoric acid and volatile alkali,

without which the saline particles taken in with our aliment cannot be decomposed, or form any new combinations, but must be ejected by the excretive powers as they entered.

The *acidum perlatum*, which has been discovered in microcosmic salt, is too little known to require any attention at present\*.

*Inquiry into the different Theories of this Disease.*

The consideration of the above case naturally leads to an inquiry into the different theories of this disease. Is it a defect of assimilation, a disease of the liver, or an affection of the kidneys?

As to assimilation, the antecedents of the disease point out no defect in digestion. It has frequently attacked persons in the vigour of life, and has usually been attended in all its stages with a voracious appetite; from which it may be inferred that digestion has not only been properly performed, and the chyle conveyed into the circulation in a state fit for nutrition, but experiment confirms it. The serum of blood

\* Vide Bergman on Elective Attractions.

taken from the arm had no preternatural sweetness\*.

If want of assimilation, and its supposed consequence, are the effects of a weakened state of the animal functions, why is not diabetes the usual concomitant of that state?

That the cause of diabetes and quality of the urine have long been subjects of speculation, and that the idea of defect in the assimilatory powers is not new, will appear from the following quotations:

“ Ad renes pertinere is affectus videtur, quem  
 “ alii hydropem matellæ, alii urinæ profluvium,  
 “ alii diabete[m], alii Διψικόν appellat. Equi-  
 “ dem cum hæcenus bis duntaxat videre potui,  
 “ supra modum sitientibus infirmis, atque su-  
 “ binde bibentibus. Quare exuberanter quo-  
 “ que reddunt, id quod biberunt, eo a sua qua-  
 “ litate non mutato.”—Galen, l. 5. de loc. affect.  
 cap. 3.

“ Causam vero hujus affectionis reddere dif-  
 “ ficillimum, & pauci autores inveniuntur, qui  
 “ in ea reddenda inter se conveniunt. Nos in  
 “ re obscura, salvo cujusque judicio, statuimus,  
 “ proximam hujus mali causam esse facultatem

\* Home's Clinical Experiments, page 308.

“renum retentricem læsam, & quidem ab urinæ  
 “vel copia, vel *qualitate*.”—*Sennert. op. Folio.*  
*Lugdun. 1650. Tom. II. p. 1094.*

In the same chapter from which the preceding quotation is taken is the following question:—  
 “An potus immutatus planè per urinam in dia-  
 “bete reddatur?”—Galen, Alex. Trallian, Aëtius, Amatus Lusitanus, and Trincavellius, say it is not changed; and the latter observes, that in one case he found it “fervans eundem  
 “calorem, consistentiam, saporem atque odo-  
 “rem.”—*Ibid. p. 1095.*

Dodonæus, J. Baptista Sylvaticus, and others, having taught a contrary doctrine, Sennertus, in giving his own opinion, attempts to reconcile both.—“Ideoque in diabete non solum ad po-  
 “tum, sed etiam alia respiciendum. Sunt  
 “enim primò diabetæ quidem gradus. In  
 “principio enim, cum vires nondum dejectæ  
 “sunt, & vis alteratrix, nondum extremè labo-  
 “rat, non mirum est, si potus aliquomodo mute-  
 “tur; temporis vero progressu, ubi vis altera-  
 “trix magis labefactatur, potus plane immuta-  
 “tus excernitur. Deinde potus etiam alius mu-  
 “tatur facilius, alius difficilius. Aquam, cum  
 “parum mutari possit, non mirum est, eodem  
 “colore & reliquis accidentibus non mutatis,  
 “excerni:

“ excerni : alii vero potus, qui magis compositi  
 “ sunt, non ita facile transeunt, quin aliquam  
 “ mutationem accipiant. Præterea id, quod in  
 “ diabete excernitur, non saltem potus est, sed  
 “ sæpe etiam accedit corporis colliquatio, unde  
 “ plus urinæ emittitur, quam potûs assumptum  
 “ est.” — *Ibid.* p. 1095.

Then comes the following question: “ Quæ-  
 “ nam diabetæ causa sit ? ” — Answer. “ Vulgata  
 “ quidem, & quam plerique sequuntur, sen-  
 “ tentia est, proximam hujus mali causam esse  
 “ renum intemperiem calidam, ob quam illi  
 “ serum copiosius e venis attrahant, quodcum  
 “ ob imbecillitatem & copiam retinere non pos-  
 “ sint, venas rursus a jecore, hoc ex intestinis  
 “ & ventriculo trahere, unde orificium ventri-  
 “ culi vellicetur, ac fitis excitetur, ob quam  
 “ assumptus potus mox a venis & renibus attraha-  
 “ tur, atque iterum ad vesicam mittatur.” — *Ibid.*

J. Baptista Sylvaticus, after Galen, Aretæus, and Actuarius, having delivered the following doctrine — “ Insignem calidam intemperiem in  
 “ hepate & toto venoso genere succensam, san-  
 “ guinem fundere, ejusque portionem aliquam  
 “ in serum mutare.” — Sennertus farther observes,  
 “ His autoribus posterioribus assentimur in eo,  
 “ quod

“ quod non tam in renibus quam aliis partibus  
 “ caufâ diabetis quærenda fit. Sit enim, de  
 “ quo ta non, ut ex superioribus patet, non im-  
 “ merito dubitatur, quod renes fortiter attrahant :  
 “ tamen niſi ſerum adfit, id attrahere non poſ-  
 “ ſunt ; & renum fortis attractio, ſeri ſeu urinæ  
 “ copiam jam præſupponit.”—*Ibid.*

“ Quapropter diabetem ſanguinis potius &  
 “ immediatius quam renum affectionem eſſe, &  
 “ originem ſuam inde ſumere credimus, qua-  
 “ tenus cruoris maſſa velut deliqueſcit, & in  
 “ ſeroſitatem copioſè nimis funditur: quod e-  
 “ quidem ex urinæ quantitate ita in immenſum  
 “ aucta, quæ non niſi a ſanguinis deliquio, &  
 “ conſumptione procedat, facile conſtat. . . .  
 “ Itaque . . . opinari ducor ſanguinis craſin ſive  
 “ miſtionem ita laxari, & quadantenus diſſolvi,  
 “ ut particulæ aquoſæ a craſſioribus contineri  
 “ nequeant, quin illæ harum amplexionibus  
 “ cito elapſæ, & ſalinis imbutæ, per vias re-  
 “ num maxime patentès excurrant.”—*Willis,*  
*Pharm. Ration. p 105.*

“ I believe the chief and moſt frequent cauſe  
 “ of diabetes conſiſts in the too-much diſſolved  
 “ and lax mixture of the blood.”—*Bonetus's*  
*Guide. Folio tranſlation. Book iv.*

“ For



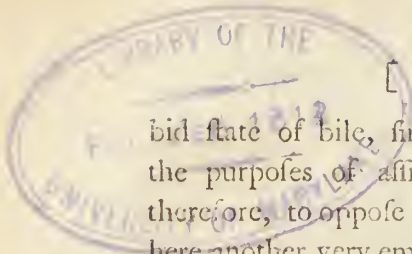
“ For their blood being by this means so impoverished as to be utterly unable to assimilate the juices received into the mass, they pass off crude and undigested by the urinary passages.”  
—*Swan's Translation of Sydenham*, p. 313.

The discovery of the circulation of the blood naturally destroyed the theory of attraction by a supposed *calida intemperies*; and the discovery of the quality of diabetic urine by Willis, settled all disputes on that head: but the cause of the disease, notwithstanding those great discoveries, seems still to remain as unsettled as ever.

A late very celebrated writer\* has pitched upon the liver for the seat of diabetes. He says he always found a steatomatous collection in it; to which he attributes a vitiated secretion of bile, deficient of saline matter to properly mix and assimilate the fluids.

This theory, as it is nearly allied to the circumstances of Mr. Holford's case, appears plausible; but it must be observed that the state of the liver, described by Dr. Mead, differs essentially from that of the case before us: this, however, is not a sufficient objection, as different states of the liver may be supposed to produce a mor-

\* Mead. Essay on Poisons, page 28.



bid state of bile, similar, or equally unfit for the purposes of assimilation. It is necessary, therefore, to oppose authority to authority; and here another very eminent author assures us, that though the liver has sometimes been found diseased, yet this concurrence does not often take place.—“ In twenty instances,” says he, “ which I have seen, there was not, in any one of them, any evident affection of the liver\*.”

To this authority, exclusive of the negative proofs contained in the following dissections, may be added the testimony of Dr. Home, who says, “ the liver was natural †.” May we not, therefore, consider the disease of the liver as a complication in the case of Mr. Holford? and may not the same be said of the calculous state of the pancreas?

Unfortunately we have few dissections of this disease to refer to; nevertheless what we have, excepting Dr. Mead’s general assertion, expressly describe such an affection of the kidneys as we might, *a priori*, expect to find.

“ Anno 1590, Filia Præsidis Hollandiæ 18 annorum aliquot ante obitum annos diabeto

\* Cullen. First Lines, Vol. IV. page 89.

† Clinical Experiments, page 311.

“ labo-

“ laborabat. . . . Renes huic non absumpti, ve-  
 “ rum flaccidiores solito, figura cineritia non  
 “ impense rubra.”—*Petrus Parvius* \*, Ob. An. 2.

“ Aperto cadavere ren sinister inventus est  
 “ lapide obfessus exiguo : ren in magnam mo-  
 “ lem undique increverat, adæquabat renem  
 “ bubulum magnitudine : paulum faniei in eo  
 “ erat : dexter adeo parvus erat ut fere reperiri  
 “ non potuerit ; macruerat multum.” — *Ballo-*  
*nius* †, eph. & epid. l. 2. p. 152.

“ In Nob. N. a febre ardente extincto, pulmo  
 “ niger & admodum tumidus repertus est ; in  
 “ utroque rene duo magni calculi : hic copio-  
 “ siores justo fundebat urinas, aquæ simillimas,  
 “ sitimque intolerabilem pariebatur, ut quæ nul-  
 “ lo potu sedari poterat ‡.”

“ Ren sinister lapide angulos obtufos habente  
 “ obfessus est, in ureteris principium implanta-  
 “ tus. . . . Ren alter lapide non obfessus, justo  
 “ minor erat, & pene collapsus. Nullum com-  
 “ memorabile vitium quod sub obtutum cade-  
 “ ret.”—*Ballonius* §, eph. & epid. l. 2. p. 183,

\* Vide Sepulchretum Boneti, Lib. iiii. sect. xxvi. ob. 1.

† Ibid. ob. 2.

‡ Ibid. ob. 3.

§ Ibid. ob. 5.

“ Hic enim intra decem horarum decursum  
 “ ultra duodecim urinæ mensuras, incredibile  
 “ dictu, excreverat : & post aliquod tempus,  
 “ accedente aliq graviori morbo defunctus, at-  
 “ que fecatus, ureterem dextrum, insigniter &  
 “ farciminis instar expansum, quin ejusdem la-  
 “ teris renem in molem sinistro duplo majorem  
 “ elevatum ostendit \*.”

“ Remotis intestinis, &c. in oculos mihi in-  
 “ currit ureter dexter mirum in modum distor-  
 “ tus, atque hic illic multum expansus, ut in-  
 “ testinum ratione crassitie representaret. Pel-  
 “ vis quoque adeo erat distenta ut malum au-  
 “ rantium mediocre facillime, & citra difficul-  
 “ tatem admitteret. Parenchymate omnimodo  
 “ consumto, nil præter membranosas partes,  
 “ perquam induratas superstes videbatur †.”

“ Vir quidam in ætatis flore, diu atrocibus  
 “ nephriticis doloribus vexatus, renisque ab-  
 “ scëssum passus in diabetem incidit. Singulis  
 “ septimanis dolium dimidium cerevisiæ ingur-  
 “ gitare difficile illi non fuit. Post mortem. . .  
 “ viscera satis bene constituta, exceptis renibus  
 “ & ureteribus, conspexi ; uterque enim ren ex

\* Hoffmanni Consult. & Resp. Med. Casus 85.

† Ruyfchii Dilucid. Valv. obs. 13.

“ parte consumtus erat, præfertim dexter; cu-  
 “ jus substantiâ planè consumtâ, ejus membra-  
 “ nas summopere incrassâtas & contractâs, pel-  
 “ visque capacitatem adæquantes vidi\*.”

“ On examining the kidneys, the left was  
 “ larger than natural, and its substance softer.  
 “ There was no uncommon appearance in the  
 “ right kidney, except a greater degree of  
 “ softness. The substance of both kidneys had  
 “ a sour odour †.” — Dr. Monro observes on the  
 above case, that “ both kidneys seemed to be of  
 “ a large size, were of a remarkably pale co-  
 “ lour, and felt rather softer than common ‡.”

Morgagni has been quoted on this subject; but the case ep. 41. art. 13. confirms nothing, the kidneys not having been examined; and ep. 42. art. 43. he says, “ Nec Valsalva, nec ego  
 “ quenquam ex diabete mortuum dissecui-  
 “ mus.”

From the proofs above adduced, extracted from the most respectable writers, it appears that the kidneys have invariably been found considerably diseased; but as it has been fashionable, in consequence of a revival of the crude

\* Ruyfchii Obs. Anat. Med. Centuria, ob. 13.

† Home. Clinical Experiments, page 310.

‡ Ibid.

system of the last century, to call this the effect, and not the cause, it is necessary to inquire more particularly into the circumstances of the disease; the remote or occasional causes of it; and the method of cure which has now and then succeeded.

An increased discharge of urine, excepting in the case of Mr. Holford, has always been the first symptom of diabetes; the other symptoms have been consequential and in proportion. Can an imperfect digestion or assimilation be supposed capable of stimulating the kidneys to *excrete* five or six times the usual quantity?

Chyle is at all times mixed with the blood, the blood vessels being the vehicles of it, or the organs of its distribution. If diabetes be not a disease of the kidneys, why do they not permit the nutritive, chylous, or saccharine matter to pass at all times? For it cannot be denied that such saccharine matter is perpetually conveyed, mixed with the blood, by the emulgent arteries, and presented, along with the excrementitious matter, to the excretory vessels of the kidneys.

The principal argument against diabetes being an affection of the kidneys is this — “ Sugar is  
 “ found in diabetic urine. Sweet chyle is the  
 “ first product of the stomachic and intestinal  
 “ digestion :

“ digestion ; as chyle in the thoracic duct, and  
 “ milk, which is a speedy secretion of it, con-  
 “ tain much saccharine matter. This is changed  
 “ in some hours, by the animal process, into  
 “ an ammoniacal salt, which is that found in  
 “ all the secretions. But the saccharine salt still  
 “ remaining in the urine, which is the most  
 “ perfectly animalised fluid, shews that there is  
 “ great defect in the animal process \*.”

It must be allowed that sugar is found — that  
 sweet chyle is the first product—and that urine is  
 the most perfectly animalised fluid, &c. but it  
 does not follow that the chyle is of no other use  
 than to be converted into ammoniacal salt, or  
 that any original defect in the animal process is  
 the cause of that want of conversion : this defect  
 of ammoniacal salt, or rather saline matter, for  
 the quantity of ammoniacal salt has been much  
 over-rated, appearing, as I have attempted to  
 explain above, to be owing to a want of phos-  
 phoric acid, (which I take to be a modification  
 of the saccharine) and the saccharine matter like-  
 wise appearing to be the cause rather than the  
 effect of the disease.

\* Home. Clinical Experiments, page 319.

I shall now farther observe, that the saline matter discharged by the kidneys in health ought to be considered as the product of nutrition, or rather the refuse of that process; for when the nutritive part of the blood has been applied to its various uses, and fecerned, are not the particles unfit for those purposes retained, and brought back into the circulation to be discharged through the kidneys as excrementitious in various saline forms, which have been thus generated and rejected by the powers of nutrition?

May we not, in this manner, easily account for the small quantity of excrementitious matter in the urine, without supposing any defect of assimilation? For where nutrition is very sparingly performed, the quantity of excrementitious matter, the result of it, must be small in proportion.

The remote or occasional causes, noticed by authors, are, mineral and animal poisons—intemperance in drinking and exercise—large doses of antimonials—opiates and diuretics—large draughts, too frequently repeated, of Harrowgate and Epfom waters: to which may be added debility succeeding intermittents, and nephritic affections.

The



The method of cure likewise coincides with the idea of diabetes being a disease of the kidneys. Tonics, astringents, aromatics, agglutinants, absorbents, and opiates, are the only medicines which have succeeded. Many cures performed by these, together with variety of formulæ, sufficiently complicated and farraginous, may be found in the following works:—Vide Riolani op. p. 336.—Sennerti op. Tom. II. p. 1095.—Bonetus, lib. 4.—Pitcairn, p. 272.—Riverii op. p. 361.—Zacuti Lusitani op. p. 423.—Baglivi op. ep. 4.—R. Morton op. p. 15.—Martini Lister Exercit. Med. p. 27.—Willis Ph. Rat. p. 105.—Etmulleri op. Tom. II. p. 714.—Hoffmanni Consult. & Respons. Medic. Casus 85.

Upon the whole, considering the office of the kidneys to be merely that of percolation, I take the proximate cause of diabetes to consist in a morbid dilatation of the uriniferous tubes of those organs, whereby they become pervious to the nutritious matter, whose globuli, in a state of health, are too large to be admitted through them; and that this morbid state does exist either with or without a diarrhœa thereof.

When we consider that the quantity of urine

voided by Mr. Holford was singularly small, and that it did not contain latterly a greater proportion of saccharine matter than has been met with in other cases, where the patients have discharged four, five, or six times the quantity, and nevertheless withstood the ravages of the disease for years, the quantity of aliment demanded by the constitution and taken in having been adequate to the loss, is it not probable that a cure would have been effected, provided the stomach and organs subservient to digestion had retained their digestive power to supply the demands of the system ?

*Chester,*

July 30, 1788.

V. Obser-

V. *Observations on Pemphigus.* By Stephen Dickson, M. D. Fellow of the College of Physicians, and one of the King's Professors of Physic in the City of Dublin, M. R. I. A. &c. — From *The Transactions of the Royal Irish Academy*, 1787. 4to. Dublin.

Vera experientia nascitur e compluribus observationibus, magna diligentia, attentione & cura notatis, quæ integram morbi historiam, cum omnibus ad rem pertinentibus circumstantiis complectuntur.

HOFFMAN.

**P**EMPHIGUS is a disease of very rare occurrence, and many physicians, in extensive practice, have never met with an instance of it. However, six have fallen within my observation — three in Scotland, one in England, and two in this kingdom. I mention this circumstance as an apology for writing on this subject: had the same opportunities occurred to men of more enlarged experience, I should have been silent. I am also aware that uncommon cases are not the best subjects for medical inquiry; but they often serve to reflect light on those which are more usual; and besides, what-

ever affects human nature must naturally conciliate our attention.

Our best nosologist, Dr. Cullen, (to whom, by the by, no instance of this disease ever occurred) has classed pemphigus in the order of Exanthemata. This classification will certainly appear sufficiently proper to those who grant this Nosologist the latitude he allows himself in the arrangement of his genera. When the plague and petechial fever are allowed to be classed under different heads, and the thrush and scarlet fever under the same head, we need not contend about the place of pemphigus, even though we should find it not to be contagious, sometimes commencing and continuing without fever, and affecting persons more than once in the course of their lives. Dr. Cullen describes this disorder as follows: “ A contagious fever, “ vesicles about the size of an almond\* appear-  
“ ing

\* Dr. Cullen's words are, “ *avellanæ magnitudine,*” i. e. “ of the size of a filbert.” This was the size of some of the largest vesicles in a well marked instance of pemphigus that occurred lately to the Editor of this Journal at the Westminster General Dispensary. In this patient fresh pustules continued to appear, from time to time, for the space of six weeks; but the eruption was confined to the external surface

of

“ ing on the first, second, or third day of the  
 “ disease, remaining for many days, and at  
 “ length pouring out a thin ichor.”—I propose  
 to amend his description in the following man-  
 ner: *A fever, accompanied with the successive  
 eruption from different parts of the body, internal  
 as well as external, of vesicles about the size of an  
 almond, which become turgid, with a faintly yel-  
 lowish serum, and in three or four days subside.*  
 I shall only observe at present, that I am by no  
 means convinced of this disorder being conta-  
 gious; that new vesicles arise, not only on the  
 first, second, or third, but on every day of the  
 disease; that I have never known them remain  
 for many days; that the fluid they contain does  
 not appear in general to be an ichor or sanies,  
 but a bland, inodorous, insipid serum; and that  
 instead of being poured out, it is most com-  
 monly absorbed into the system.

No traces of this disease are discoverable in

of the body. A more particular account of this case, accom-  
 panied with an engraving representing the appearance of the  
 vesicles, may be expected soon from an ingenious Student of  
 Physic (Mr. T. Christie) who means to make this disease the  
 subject of an inaugural dissertation. — EDITOR.

the writings either of the Greeks, Romans, or Arabians.

Bontius, in his account of the medicine of the Egyptians, mentions the case of his friend Cavallerius, who was seized with the epidemic dysentery that prevailed during the siege in Java, by Tommagon Bauraxa, in 1628. His disorder was accompanied with the eruption of cuticular vesicles, which were filled with a greenish pus, that eroded the skin underneath, even to the flesh. The patient died. It is evident that little can be concluded from this brief account.

Carolus Piso, in his 149th observation, accurately depicts the genuine pemphigus, as it appeared in the case of Egmont de Rinach, about an hundred and fifty years ago, at Nantz. He terms it hydatids, and says it occurred to him frequently : but I have reason to suspect that he confounds under the same name the chicken pox, a slight disorder, in which the skin is affected, not with spreading vesicles, but with small pustules. He seems also to confound with pemphigus some other erythematous affections ; for he says that these watery pustules frequently precede the eruption of the itch ; that they  
sometimes

sometimes occur without fever, sometimes accompany continued fever, and sometimes appear in the beginning of intermittents. The truth is, that Pifo, though an industrious observer and a candid man, was by no means an acute nosologist. His account, however, of the case of Egmont de Rinach deserves attention, not only as being the first accurate and authentic description of this disease on record, but as pointing out a diversity in the habit of body then accompanying this disease from what has been since met with; for though Pifo declares that the vesicles in this case supervened on a putrid synochus, yet he says that he let blood in the beginning with great advantage, and earnestly recommends the same practice in similar cases. In every instance, however, that I have seen of this disorder, such a practice would have been plainly improper, if not pernicious.

The next author who mentions pemphigus is Morton. Speaking of the diseases which prevailed in London between 1682 and 1692, he mentions, among other fevers of a malignant type, some in which watery vesicles were scattered over the head and chest. These fevers, however, he says, were merely sporadic, and  
not

not propagated by contagion, as in the pestilential constitution.

For the next authentic \* account of pemphigus we are indebted to the observations of Sauvages. He first observed it in the hospital at Montpellier, in 1725, in a soldier who fell a victim to it. Afterwards he saw five other cases, chiefly of beggars, or other poor people, in all of which acute febrile symptoms were present. Twice, however, he saw it unattended with fever.

Lastly, Dr. Stewart, of Aberdeen, (in a letter to Dr. Duncan, which is inserted in the Medical Commentaries for 1778) mentions a case of pemphigus which occurred to him in the hospital in that town. A soldier had been ordered to march soon after he had been seized with the measles; the eruption was driven in by the cold, and in ten days afterwards the pemphigus appeared. The vesicles (the largest of which were snipped) poured out, at first, a semipellucid serum, but in the course of the disease discharged a bloody ichor. In this case the tendency to putrefaction was very strong; but the patient recovered by the liberal admini-

\* See Culleni Nosol. Tom. II. G. xxxiv.



stration of bark and wine. From this case I think we are justified in inferring that the nature of the fluid contained in the vesicles (however accurately it may be ascertained to be a pure serum in the beginning) may be so altered in the course of the disease, by its own fermentation, or by admixture with other fluids of the body, from their vessels being broken down, that it may at length cease to be a diagnostic symptom of this disorder.

But no author who has written on the subject of pemphigus has mentioned an extraordinary peculiarity of this disorder, which I have observed in two instances; namely, that the vesicles have taken possession of the internal parts of the body, and proceeded in succession (some rising while others decayed) from the mouth, downwards, through the whole surface of the alimentary canal.

The first case in which I had the opportunity of observing this singular and distressing symptom, was that of a woman under the care of Dr. Gregory, at the Infirmary of Edinburgh, in 1783. This woman's menses had been obstructed for two years and a half. During that period she had been thrice before attacked with the same disorder, which had each time super-

vened upon a vomiting of blood. Her skin was generally cool, and her pulse (though weak) never much increased in frequency. Peruvian bark and wine were administered to her liberally: by these and other occasional remedies she recovered.

The other case, in which vesicles appeared to have been formed internally, occurred to me lately in this town. I shall relate the particulars of it, as I think it worthy of observation.

—— —, aged twenty-three, of a delicate form and sanguine temperament, the wife of a man in tolerably good circumstances, and who had been about a fortnight ill of a low fever, was seized (after having suffered much fatigue in attending her husband) with pains in her back, head-ach, and tendency to vomit. — As I was attending her husband I saw the first approaches of her disorder, and, on the evening of the day she was first attacked, directed her to take an emetic, and to bathe her feet in warm water.

The next morning her skin was very hot; pulse frequent; head-ach not better; she had not slept, and complained of a sore throat: on inspection the uvula and tonsils appeared inflamed, and some mucus was collected in the  
back

back of the fauces : she had had no stool for two days. I ordered a clyster immediately ; afterwards a gentle purgative ; tincture of roses for a gargle. In the evening all the symptoms were milder. The physic had operated twice. I ordered the pediluvium to be repeated.

Third day. She complained of a smarting, itching, and (as she expressed herself) tingling pain in her tongue and through the whole inside of her mouth. Her tongue was of a bright red colour, and dry, but clean. She was thirsty ; but complained that her drink was unpalatable, though acidulated with lemon juice. She had no moisture on her skin : had gone to stool once : slept tolerably well the night before : the febrile symptoms were mitigated, but the cynanche unabated. I ordered nothing but the saline julep.

Fourth day. There appeared on her tongue a pellucid vesicle of about an inch long, and near half an inch broad, turgid with a faintly yellowish serous fluid. A smaller one of the same kind appeared on the inside of the left cheek. The sensation which they occasioned she described as being similar to that which she had experienced before their eruption, but greater in degree, and somewhat as if they were

full of scalding water. This day her skin was cooler ; but her pulse very weak, irregular, and about ninety in a minute. She had had two loose stools. I prescribed half a drachm of the red Peruvian bark, very finely powdered, to be taken every two hours in a goblet of wine and water. Imperial for common drink. The tincture of roses to be changed for an emollient gargle.

Fifth day. Three vesicles similar to the former appeared on her chest and right arm. Other symptoms nearly as before. Pulse not so feeble. Medicines were continued.

Sixth day. Her stomach rejected the bark. Two new vesicles appeared on her neck and cheek. Her breath was foetid. She had had some low delirium in the night. Pulse eighty-eight, and very weak. No sense of taste. I prescribed a decoction of bark, one ounce, in which should be dissolved half a drachm of vegetable alkali, to be taken every two hours ; and immediately after each dose half an ounce of the same decoction mixed with six drachms of lemon juice. Cyder or porter for common drink.

Seventh day. There was little change. The medicines were continued.

Eighth

Eighth day. The vesicles on the inside of the mouth, and on the tongue, disappeared, and the cuticle which had been elevated was shrivelled, and of a brownish colour. Deglutition was difficult, and, as she said, painful through the whole inside of her throat. Pulse eighty, and rather stronger. Bowels regular. Medicines were continued.

Ninth day. The cuticle on the parts formerly occupied by vesicles on the inside of the cheek, and on the tongue, had cracked, and was peeling off: the parts underneath appeared raw and sore. Deglutition had now become so painful, that she refused medicine, food, and even drink. She could not bear the slightest pressure on the neck. A new vesicle appeared under her right ear. Some purulent matter appeared on the back of the pharynx, the origin of which, however, was not discernible. Pulse eighty-six, and of nearly the same strength. I prescribed a clyster of warm water: after its operation, another of new-milk and decoction of bark, equal parts; the same to be repeated four hours afterwards. At night an anodyne clyster, with fifty drops of thebaic tincture. White liniment for the sores.

Tenth

Tenth day. The vesicles on the chest and right arm had disappeared. The fores of the tongue and cheek were of a darker colour, and seemed to be healing. Some new vesicles appeared on the abdomen. Pulse not so weak. She rested well the former part of the preceding night; but was disturbed by an accident, and afterwards was much inclined to rove in her discourse till morning. Medicines were continued.

Eleventh day. The symptoms were nearly the same as the day before. The vesicles on the neck and cheek had disappeared, and the cuticle in those parts was shrivelled and cracked. The epigastric region was extremely sore, and this soreness much increased by pressure. The last clyster of decoction of bark and milk administered the day before was not retained. I ordered salep to be substituted for milk; other medicines to be continued.

Twelfth day. She could swallow, though still not without pain. I directed the medicines which had been prescribed the fourth day to be repeated; the others to be omitted.

Thirteenth day. She vomited some blood along with the first dose of the bark. Pulse eighty, and stronger. The vesicles under the  
ear

ear and on the abdomen had disappeared. Several small vesicles (not above the size of a pea) arose on the hypogastric region of the abdomen, one on the labia pudendorum, and two on the left thigh. As she had taken some bark, which remained on her stomach, I directed this medicine to be continued, and an anodyne draught to be administered at night.

Fourteenth day. She had two loose stools, much intermixed with blood, and complained of great foreness of her belly, increased by pressure. I prescribed a little castor oil : other medicines as before, except the draught.

Fifteenth day. She had had two stools somewhat bloody the night before, and one almost natural in the morning. Pulse seventy-seven, and of pretty good strength. Skin quite cool ; spirits better ; and some little appetite. Menfes had appeared in the morning. I directed the medicines to be continued as before.

From this time she recovered apace, and in about a week had no complaint but weakness. Exercise, however, and the country air, soon completely re-established her health.

After this full statement of a case very distinctly marked, it would be superfluous to add any thing by way of comment. I have only

to observe, that whether this disorder be contagious or not is a question which may possibly still admit of some doubt; though, from what I have seen, or been able to collect, I am inclined to think that it is not. Almost all the instances of this disorder, which are precise and well attested, I have enumerated; and they are all solitary examples, no two of them having happened at the same time or place. I suspect, therefore, that some other disorders have been oftentimes mistaken for pemphigus; and that from thence, or from some pre-conceived theory, the notion has arisen. When I was assistant to Dr. Home, in the clinical ward of the Infirmary at Edinburgh, a patient was sent to us by Dr. Gregory, whose case he “supposed \* to be a beginning “ pemphigus,” and which he said “ was plainly “ ly contagious.” In a note which he sent with this woman, he says, “ I saw a boy five months “ ago, in the same close, very ill of the same “ disease; and I am told by the people that

\* Though the disorder of this patient appeared eventually to be of a different nature, yet it must be remembered that the approaches of most diseases are ambiguous, and that this supposition by no means tends to impeach the judgement of a gentleman who is equally distinguished for his skill and veracity.

“ several



“ several others, chiefly children, have had the  
 “ same disease since in the same close.” This  
 appeared extremely forcible, and accordingly  
 had its due weight with the students: but in a  
 day or two it appeared very evidently that the  
 disease of the woman whom Dr. Gregory had  
 sent us was merely topical. She had no fever.  
 The vesicles (which were situated under the eye  
 and upon the eyelid) were of a pale red colour;  
 some pustules filled with yellow matter appeared  
 upon the brow at the same time; and both of  
 these vanished almost immediately after she came  
 into the Infirmary; so that she left it in three or  
 four days perfectly well, having taken no medi-  
 cine but the saline julep. This woman denied  
 to us that she had ever seen any one affected with  
 vesicles; and, upon inquiring more particularly  
 among different people in the same close, I found  
 that they were in general very unqualified to  
 give a distinct account of the epidemic disease  
 (whatever it was) with which the children had  
 been affected: they seemed, however, to think  
 it neither novel nor alarming; and, by their  
 description, I should rather take it to have been  
 the chicken pox, or some such slight complaint,  
 than the pemphigus. I can have no doubt that  
 the boy Dr. Gregory mentioned he had seen was

really affected with pemphigus ; but I think that the vague testimony of the ignorant, indiscriminating people of the close is to be allowed no weight in deciding this nice question.

The nature of this disorder, as to its mildness or malignity, appears to vary considerably. In some instances it is extremely mild, as in three of the cases I have seen ; one of them in this town with Dr. Fleury. In other instances life is in the greatest danger ; thus in several of the cases I have enumerated strong symptoms of putrefescency were manifested.

With respect to the method of cure of this disorder, the general symptoms of weakness and tendency to putrefaction obviously point out the proper treatment. When the vesicles seize on the internal parts, irritation must be guarded against by opiates, demulcents, and gentle laxatives ; nourishment must be supplied ; and the grand remedies, bark and wine, (especially the latter) must be sedulously administered.

## CATALOGUE OF BOOKS.

1. **T**HE Connexion of Life with Respiration; or, An Experimental Inquiry into the Effects of Submersion, Strangulation, and several Kinds of noxious Airs on living Animals: With an Account of the Nature of the Disease they produce; its Distinction from Death itself; and the most effectual Means of Cure. By *Edmund Goodwyn*, M. D. 8vo. *Johnson*, London, 1788.

2. The Duties of a Regimental Surgeon considered: with Observations on his general Qualifications, and Hints relative to a more respectable Practice, and better Regulation of that Department. Wherein are interspersed many medical Anecdotes, and Subjects discussed, equally interesting to every Practitioner. By *R. Hamilton*, M. D. of the Royal College of Physicians, London; Member of the Medical and Physical Societies of Edinburgh, and of the Medical Society of London. 2 Vols. 8vo. *Johnson*, London, 1788.

3. Thirty-eight Plates, with Explanations; intended to illustrate *Linnaeus's* System of Vegetables, and particularly adapted to the Let-

ters\* on the Elements of Botany. By *Thomas Martyn*, B. D, F. R. S. Professor of Botany in the University of Cambridge 8vo. *White*, London, 1788.

4. Elements of Natural History and Chemistry: being the second Edition of the Elementary Lectures on those Sciences, first published in 1782, and now greatly enlarged and improved by the Author, *M. de Fourcroy*, Doctor of the Faculty of Medicine at Paris, of the Royal Academy of Sciences, &c. Translated into English. With occasional Notes and an historical Preface by the Translator. 4 Vols. 8vo, *Robinsons*, London, 1788.

5. Experiments and Observations to investigate, by chemical Analysis, the medical Properties of the Mineral Waters of Spa and Aix-la Chapelle in Germany; and of the Waters and Boue near St. Amand in French Flanders. By *John Afb*, M. D. Fellow of the Royal College of Physicians, of the Royal Society, and of the Society of Antiquaries. 8vo. *Roufon*, London, 1788.

6. The Gentleman's Stable Directory; or, Modern System of Farriery. Comprehending the present entire improved Mode of Practice;

\* See Vol. VI. page 332.

containing all the most valuable Prescriptions and approved Remedies. By *William Taplin*, Surgeon. 8vo. *Kearsley*, London, 1788.

7. The Gentleman's Experienced Farrier; containing the Methods of Diet, Exercise, Bleeding, Purging, &c., of Horses; the anatomical Parts described; the Disorders incident to Horses, and their respective Cures, &c. By *William Foster*, Farrier. 8vo. *Robinsons*, London, 1788.

8. Dissertatio Inauguralis, complectens de Topho quædam. Auctore *Gulielmo May*, Anglo. 4to. Lugd. Batav. 1787.

9. Tabulæ Anatomicæ ex archetypis egregii pictoris *Petri Berrettini* Cortonenfis expressæ, & in aes incisæ. Opus chirurgis, & pictoribus apprime necessarium. Alteram hanc editionem recensuit, notas iconas expunxit, perpetuas explicationes adjecit *Franciscus Petraglia*, Philosophiæ & Medicinæ Professor. Romæ, 1788. Fol. max.

10. Bibliotheca Medicinæ practicæ, qua Scripta ad Partem Medicinæ practicam facientia a Rerum Initiis recensentur, Auctore *Alberto von Haller*, Domino quondam in Goumoens le Jux & Feudi in Eclagnens; Equite Stellæ Polaris; Præside Societatis Regiæ Goettingensis; Præside

Præfide Societatis œconomicæ Bernenfis; Sodali Academiæ Regiæ Scientiarum Parifiſinæ; Academiæ Imp. Nat. Cur. Acad. Imp. Ruſſ. Boruſſ. Succ. Bonon. Arcadiæ; Academiæ Regiæ Chirurgorum Paris. Societ. Reg. Brit. Bot. Flor. Bavaricæ; Helveticæ; Coll. Med. Edinburgenſium; in Sûpremo Senatu Reip. Bernenfis Ducentumviro; ex ejus Schedis reſtituit, auxit & edidit *Joachim Diterich Brandis*, M. D. Medicus Hildeſienſis. Tomus IV. ab Anno 1686 ad A. 1707. 4to. Baſileæ, 1788.

This fourth volume contains all that can be collected from the manuſcripts of the illuſtrious Haller towards the continuation of this truly valuable work; but the learned Editor, Dr. Brandis, who appears to be ably qualified for the taſk, has undertaken (as we learn from his preface) to bring it down to the preſent time, and hopes in about three years to be able to complete his engagement on this ſubject with the Public. In the courſe of this volume many articles are inſerted which had eſcaped the notice of Haller. It cloſes with an Index of the names of the Authors that occur in this and the preceding volumes; and the Editor promiſes ſoon to add a more ample Index of the Contents of the Work.

11. Essai analytique sur l'Air pur, & les différentes especes d'Air. Par M. de la Metherie, Docteur en Médecine & Membre des Academies de Dijon & de Mayence. Seconde Edition. 8vo. 2 Tomes. Paris, 1788.

12. Krankheitgeschichte des Hocchftseeligen Koenigs von Preuffen Friedrich's des Zweyten Majestaet. Von Christian Gottlieb Selle. 12mo. Berlin, 1786.

This is a concise and well-written narrative of the last illness of the late King of Prussia by the physician who attended him. The disease was a dropsy of the chest and belly, which terminated fatally in about eleven months. The King having expressed a wish that his body might not be embalmed, or even opened after death, nothing more was permitted than to puncture the abdomen with a trocar, by which means about four quarts of water were drawn off.

13. Vermischte Beobachtungen aus der practischen Arzneykunde, Wundarzneykunst und Geburtshulfe; *i. e.* Miscellaneous Observations relative to the Practice of Physic, Surgery, and Midwifery. By L. Zorn, M.D. 8vo. Wurtzburg, 1787.

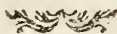
14. Versuch einer Medizinischen Ortsbeschreibung der Stadt Regerburg, nebst einer kurzen Ueber-

Uebersicht der Krankheiten welche in den Jahren 1784, 1785, und 1786, daselbst geherrscht haben; *i. e.* An Attempt towards a medical Topography of the City of Ratibon; together with a concise View of the Diseases that prevailed there in the years 1784, 1785, and 1786. By *Jacob Christian Gottlieb Schaeffers*, Physician at Ratibon, Body Physician and Counsellor of State to His Serene Highness the Prince of Tour and Taxis. 8vo. Ratibon, 1787.

15. *Torberni Bergman* Meditationes de Systemate Fossilium naturali, in usum Oryctologiae Studiosorum iterum typis mandatæ. 8vo. Oxoniæ, 1788.

16. Prime linee di pratica medica, opera di *Guglielmo Cullen*, Professore di Medicina pratica nell' Univerfita d'Edimburgo, primo medico di sua Maesta per la Scozia, &c. tradotta dall' Inglese da *Federico Rossi*, Professore di Chirurgia, ed arricchita d'annotazioni ad uso degli Studenti di Medicina nella regia Univerfita di Siena. Vol. I. 8vo. Siena, 1788.

17. Dell' Arte Ostetricia: fogli periodici con rami colorati; trimestre primo. 8vo. Bologna, 1788.





THE  
L O N D O N  
MEDICAL JOURNAL,  
FOR THE YEAR 1788,  
PART THE FOURTH.



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T H E

LONDON MEDICAL JOURNAL.

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I. *Of the epidemic Catarrh, of the Year 1788.*  
By Samuel Foart Simmons, M. D. F. R. S.

**I**N some of the earliest instances I had occasion to see of this epidemic in London, the patients dated their complaints from the latter end of June; but the disease could hardly be said to occur with much frequency before the second week of July; from which period, till about the fourth week of that month, seemed to be the space of time in which it was most prevalent. In the beginning of August it was evidently become much less frequent; but it still continued to appear during that and the two succeeding months, and two instances of it occurred to me even so lately as the middle of November\*.

The

\* From a pretty accurate register of two hundred and thirty-five cases in which I had an opportunity of observing this disease, (one hundred and sixty of which occurred at the Westminster

The weather, for some weeks preceding the appearance of the epidemic in this country, had been remarkable only for its dryness; and to this succeeded frequent rains from the latter end of June till the middle of July. Some degree of predisposition to the disease might perhaps be occasioned by this change in the state of the atmosphere; but it seems now to be pretty generally acknowledged that the origin of the epidemics of this sort, which have at different periods spread over considerable parts of the world, and of course through different climates, is not to be sought for in any of the sensible qualities of the air: and in the late epidemic, as in former diseases of the same kind, many facts oc-

Westminster General Dispensary) it appears that of this number,

From June 23 to July 7, both days included,	15	} Persons were attacked with it.
— July 8 — — 21,	79	
— — 24 — Aug. 4,	32	
— Aug. 5 — — 18,	23	
— — 19 — Sept. 1,	12	
— Sept. 2 — — 15,	21	
— — 16 — — 29,	18	
— — 30 — Oct. 13,	22	
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— — 28 — Nov. 14,	6	

curred

curred tending to corroborate the opinion of its being propagated by contagion.

Like the influenza of the year 1782, it prevailed in the northern parts of Europe several weeks before it was felt in this country; and the following account is given in the *Gazette Salulaire* of May 29, 1788, of its effects at Warsaw and Cherfon, though without ascertaining the date of its appearance in either of those places.

“ Letters from Warsaw mention, that the  
 “ same catarrhal affection which, in 1782, pre-  
 “ vailed throughout Europe, under the name  
 “ of Influenza, has again made its appearance  
 “ in that capital. The King of Poland and at  
 “ least two thirds of the inhabitants have been  
 “ or are at present affected with it; and though  
 “ few persons have died, the greater number are  
 “ confined by it to their beds. These letters  
 “ add, that a disease of this sort, occasion-  
 “ ed principally by variations in the tempera-  
 “ ture of the air from heat to cold, and com-  
 “ bined with a good deal of humidity, could  
 “ not fail to spread throughout Poland and even  
 “ to the frontiers; so that the armies had not  
 “ been exempt from it. It prevails particu-  
 “ larly at Cherfon, where the deaths of some  
 “ persons

“ persons in consequence of it at first gave rise  
 “ to a supposition that it was an inflammatory  
 “ contagion, or even the plague \*.”

According to this account the disease spread from Warsaw to the armies on the frontiers of Poland, and from thence to Cherson; but when we consider that the complaint is spoken of as being actually prevailing at Warsaw at the time the letters were written, and compare this with what is said of the mortality it had already occasioned at Cherson, it seems more reasonable to suppose that the epidemic had appeared first in the latter place, the proximity

\* “ Des lettres de Warsovie portent que la meme maladie  
 “ catarrhale qui a regné en 1762 dans toute l’Europe sous le  
 “ nom d’*Influenza* recommence a y faire des ravages. Le  
 “ Roi de Pologne & les deux tiers au moins des habitans de  
 “ cette capitale en ont été ou en sont attaqués; & quoique  
 “ peu de gens en meurent, la plupart sont obligés de garder  
 “ le lit. Ces lettres ajoutent qu’une pareille maladie, causée  
 “ principalement par la temperature d’un air variable du  
 “ chaud au froid & mêlé de beaucoup d’humidité, n’a pu  
 “ manquer de s’étendre par toute la Pologne & jusqu’aux  
 “ frontieres; de sorte que les armées n’en sont pas restées ex-  
 “ emptes. Elle regne surtout a Cherson, on quelques acci-  
 “ dens de personnes qui en sont mortes, ont d’abord fait  
 “ croire que c’étoit une contagion inflammatoire, ou meme la  
 “ peste.”



of which to Asia renders it probable that it had prevailed in that quarter of the globe previously to its appearance in Europe, as was the case with the epidemic of the year 1782, and probably with other epidemics of the same kind.

From a later number of the same work we learn that the epidemic began to be felt, about the middle of April, at Vienna, where, before the 20th of that month, more than twenty thousand persons were supposed to be affected with it; and that it went on increasing till about the 25th; after which time it began to diminish in frequency. In this account also, which is said to be copied from the Literary Gazette of Ratisbon, mention is made of its having already been very general in the northern parts of Europe, particularly in Russia and Poland\*.

It

\* “VIENNE. La fièvre catarrhale qui, comme on sçait  
 “ par les feuilles publiques, a attaqué tant d’hommes dans les  
 “ pays du nord, principalement en Russie & en Pologne, &  
 “ laquelle à l’instar de la maladie analogue epidemique en  
 “ 1782 voyage de pays en pays, s’est actuellement repandue  
 “ comme un nuage du nord est sur notre contrée. Elle a com-  
 “ mencé vers la mi d’Avril d’attaquer plusieurs personnes; le  
 “ 20, il y eut deja dans cette seule ville plus de 20,000 indi-  
 “ vidus qui en estoient affectés, & le nombre des malades al-  
 “ loit toujours en augmentant jusqu’au 25. Depuis ce jour

It did not reach Munich till the month of June\*.

At Paris it began to be perceived towards the middle of August †, and had not entirely subsided on the 24th of October, as I learn from a letter of that date with which M. Vicq D'Azyr has favoured me.

At Geneva, as I find from a letter which Dr. Blagden has had the goodness to communicate to me from Dr. Odier of that city, it appeared

“ ses ravages ont paru diminuer.”—*Gazette Salulaire*, 6 Novembre, 1788.

\* “MUNICH, du Mois de Juillet. Il y'a pres d'un mois que l'influenza, comme on l'appelle, s'est manifestée ici avec ses differens symptomes.”—*Gazette Salulaire*, 6 Novembre, 1788.

† The account given of it in the *Journal de Medecine* is as follows:—“ Le ciel, fréquemment chargé de gros nuages, a donné beaucoup de pluie par averse, du douze au trente-un (d'Août), & leur passage s'est fait vivement sentir sur les corps animés, quoique les hygromètres & les thermomètres y fussent peu sensibles. Cette constitution a multiplié les affections séreuses, & entretenu les bilieuses & les féro-bilieuses. Les premières, desquelles peu de personnes ont été exemptes, dérivant de la transpiration dérangée, ont donné des rhumes, des fluxions, des courbatures, & des devoiemens simples; celles-ci se font jugées assez promptement, en procurant une transpiration soutenue par les délayans légèrement diaphorétiques.”—*Journ. de Medecine*, Octobre 1788, page 101.

about

about the 10th of October; and this is the latest intelligence I have received relative to its progress on the Continent.

This disease was observed in some parts of Kent, and in particular on board a guardship at Chatham, in the second week of July; but at Kilburn, a village only two miles distant from London, on the Edgware road, no instance of it appeared to have occurred before the 19th of that month.

It began in Dover Castle on the 15th or 16th of July, and went through the garrison in a short time; but did not appear in the town before the 21st of July. For this fact I am indebted to Dr. Blagden and the Rev. Mr. Lyon.

Of the date of its appearance at York I have not been informed; but I know, from very respectable authority, that it had not been felt there on the 5th of August\*: and yet at that very time it was present at Harrowgate, in the

\* Dr. Hunter, a very experienced physician at York, in a letter to me, dated August 5, says, "We have not had the slightest appearance of a catarrh in our city or neighbourhood during this year. I have indeed one patient who labours under a mucous expectoration, which she says she caught in London about six weeks ago, but the disease is almost worn away."

same county. A gentleman, who quitted the latter place on the 7th of August, and who had been slightly affected with the disease, assured me that it had prevailed there several days before his departure.

It did not appear at Manchester before the latter end of July \* ; nor in Cornwall † till the middle

\* See the account given of this disease, in the next article, by Dr. Bew.

† For the date of its appearance in Cornwall I am indebted to Dr. William May, Physician at Truro, who has favoured me with the following account of the disease as it occurred in that part of the kingdom :

“ The first appearance of the late epidemical catarrh, in  
 “ this part of the kingdom, was towards the middle of Au-  
 “ gust, and it became very general in the space of two or  
 “ three weeks. The sum of my observation with respect to  
 “ this disease is, that it was in general considerably milder  
 “ than the epidemic of 1782 ; that it differed from the com-  
 “ mon catarrh only by the intenseness of the symptoms of  
 “ coryzo and raucedo which accompanied it ; and that the py-  
 “ rexia, which in most cases was very slight, seldom conti-  
 “ nued longer than the fourth or fifth day, being removed,  
 “ in the greater number of instances, by a free determination  
 “ to the skin. There was, indeed, a pretty general symptom  
 “ which I do not recollect to have taken notice of in the pre-  
 “ ceding influenza, namely, a rheumatic affection, chiefly  
 “ confined to the superior part of the body, and which, in  
 “ some cases, ran out into disagreeable lengths, putting on the  
 “ appearance

middle of August; about which period also, according to an account inserted in different newspapers,

“ appearance of true chronic rheumatism. There was also  
 “ one patient of mine who had a typhus superinduced upon  
 “ the influenza, (as it clearly appeared to be in the first in-  
 “ stance) and I was not a little surprised to find that the in-  
 “ flammation affecting the mucous membrane of the fauces  
 “ produced an exulceration of the tonsils, and that the disease  
 “ took on the nature of a cynanche maligna, requiring bark  
 “ and cordials to be liberally administered. What astonished  
 “ me, in this case, was the speedy transition from a state of  
 “ phlogistic diathesis to so opposite a condition of the system  
 “ as that which favoured the access of a typhous fever.

“ With respect to the state of the weather, I lament that  
 “ I had not time to keep any account of it; but, as far as my  
 “ recollection goes, there was little of variation from a mild,  
 “ temperate condition of the atmosphere. There is one cir-  
 “ cumstance more which I think worthy of remarking, and  
 “ which probably may throw some light on the remote causes  
 “ of the disease. During the progress of the influenza, a  
 “ complaint, which was evidently an inflammatory affection  
 “ of the mucous membrane of the fauces, &c., was frequently  
 “ observed among horses, and other cattle, and was generally  
 “ as violent among them as it was mild among their rational  
 “ neighbours. In many instances, after an illness not longer  
 “ than four or six days, horses were found to die, and where  
 “ this happened, it was for the most part attended with symp-  
 “ toms of violent pneumonic inflammation. Indeed I have  
 “ been informed by an ingenious surgeon of my acquaintance,  
 “ who does not find himself degraded by attending to the  
 “ complaints

newspapers, it prevailed very generally at Aberdeen. At Montrose, as I am informed by Mr. T. Christie, it was first perceived towards the latter end of August, at which time it was very mild, and few persons had it; but about the second week of October it prevailed with greater violence, and was much more general than before.

In no instance that came within my knowledge did it attack a whole family at once, but in general they became affected with it successively. In one family of thirty-nine persons, for instance, seventeen of whom had it, the first who experienced it was attacked on the 3d of July, and the last not before the 1st of September; and in St. Luke's Hospital instances of it continued to occur from the 16th of July till the 10th of November\*.

A lady

“ complaints of this useful species, that he directed venæsec-  
 “ tion in most cases, and had always observed a very conside-  
 “ rable inflammatory size on the surface of the blood, and,  
 “ that upon the repetition of this evacuation relief was al-  
 “ ways obtained.”

\* The number of persons in the hospital during the above-mentioned period was about one hundred and ninety; but among these the disease was so far from being general, that I  
 saw

A lady who came from Suffolk on a visit to a family in London, on the 23d of July, found several persons of the family labouring under the disease. She herself was seized with it on the 30th, and on the 1st of August she returned

saw only twenty-five instances in which it was distinctly marked. It is probable, however, that, besides these, there were many of the patients who had it in so slight a degree as not to excite attention, or who were incapable of describing their complaints. In the above-mentioned twenty-five cases the dates of the commencement of the disease were as follows, viz.

July	- -	16	————	in	————	4 cases.
		18	————	—	————	2
		28	————	—	————	1
August	-	8	————	—	————	1
		11	————	—	————	1
		20	————	—	————	1
September		3	————	—	————	1
		6	————	—	————	1
		18	————	—	————	1
		19	————	—	————	1
		26	————	—	————	1
		29	————	—	————	2
October	-	5	————	—	————	1
		6	————	—	————	2
		27	————	—	————	1
		30	————	—	————	2
November		2	————	—	————	1
		10	————	—	————	1

home,

home, but was so ill after she got back into the country, that she was confined for several days to her bed. The disease had not then made its appearance in her neighbourhood; but on the fourth day after her return one of her daughters became affected with it, and in the course of about three weeks it went through the rest of her family, which consisted of six persons.

In the account given in the London Medical Journal\* of the epidemic catarrh of the year 1782, a curious fact was mentioned of its appearance on board two ships, from the West Indies, soon after their arrival at Gravesend. Mr. Boys, Surgeon at Sandwich, has favoured me with the following account of a fact, of a similar nature, relative to the late epidemic; which is, that “as soon as the Rose  
“ frigate arrived † at Portsmouth from New-  
“ foundland, the dogs ‡ on board were all  
“ seized with a cough and catarrh; and soon  
“ after-

\* Vol. III. page 318.

† The Rose arrived at Portsmouth on the 4th of November.

‡ These are not the only instances of the disease in dogs that have come to my knowledge. Two dogs belonging to a farmer



“ afterwards the whole ship’s company were  
 “ affected in the same way.” This account  
 Mr. Boys received from his son, who is one of  
 the lieutenants of the *Rose*.

No period of life seemed to be altogether exempt from this disease; but it so happened that I met with very few instances of it in children under five years of age, or in persons of more than sixty.

Like former epidemics of the same kind, it varied considerably not only in the symptoms that accompanied it in different persons, but likewise in the degree of violence and duration of those symptoms, as well as in the order in which they took place. In some, who had the disease very slightly, the symptoms went off in the course of a few hours; but more commonly they lasted several days, and in many had not entirely subsided at the end of a month.

The symptoms that occurred the most frequently were chilliness or shivering; debility; nausea and sometimes vomiting; fever; pains in

farmer at Kilburn, and a third, the property of a gentleman at Clapham, died in the month of August of a disease that seemed clearly to be catarrh; and in all three the throat was much affected.

the back and limbs ; a sensation of stiffness about the neck ; pain in the back part of the head, in one or both ears, in the temples and fore part of the head ; sneezing ; a discharge from the eyes and nose ; cough ; hoarseness ; sore throat ; impaired taste and appetite ; a painful sensation about the pit of the stomach ; and diarrhœa.

Of these different symptoms, the only one that could be said to be almost constantly present, at some period or other of the disease, was the pain in the fore part of the head. In some this was the first symptom, coming on instantaneously with great violence, and accompanied with giddiness ; but it was not always followed by any considerable catarrhal symptoms. In some instances it did not take place till the patient had been ill for some days with cough, pain at the stomach, and other symptoms, and in many cases was so slight as hardly to excite attention.

Another symptom that occurred very frequently was the pain about the pit of the stomach. In some the pain extended along the whole course of the sternum, but more commonly it was confined to the part just now mentioned, and, when it prevailed in any considerable degree, was attended with great anxiety.

This

This painful affection, though it oftentimes seemed to be increased by the cough, and in several cases was accompanied with vomiting and diarrhœa, occurred, however, in many patients who had neither of those symptoms.

The cough, though it took place in a great number of instances, was so far from being a constant symptom, that, in at least one third of the cases that came within my observation, it made no part of the complaint. Whenever it did occur, it was, at first, commonly slight; but, by degrees, it became more deeply seated, and in many patients was of long continuance, and attended with considerable mucous expectoration, which did not easily give way to medicines; but I have, as yet, met with no instance of its termination in phthisis.

The discharge from the eyes was generally accompanied with redness and swelling of the eyelids; and in a few instances I observed a considerable degree of ophthalmia.

Sore throat occurred in about one sixth of the cases I had occasion to see. In general, where this symptom formed a part of the complaint, on inspecting the fauces, there was observable only a redness of the mucous membrane. I saw no instance of ulceration; but in a few cases the

tonsils swelled considerably, and in two a sup-  
puration ensued.

A diarrhœa occurred with much greater fre-  
quency than sore throat, and in a few cases in-  
creased to dysentery. The diarrhœa sometimes  
took place early in the disease, and oftentimes,  
after having ceased for a day or two, returned  
again; and this, in some cases, repeatedly. In  
many patients it seemed to be the means of di-  
minishing the other symptoms, and of shorten-  
ing the disease.

The pulse, except in the severer forms of the  
disease, was seldom increased to more than a  
hundred strokes in a minute, but it was com-  
monly diminished in strength; and the patients,  
in general, were affected with much languor and  
debility. An increase of fever usually took place  
towards night, with remission in the morning;  
and in many cases there was a great tendency to  
sweating. The sleep was interrupted and unre-  
freshing; and in several instances I observed a  
slight degree of delirium.

The tongue was sometimes dry, but more  
commonly moist and covered with a white  
mucus.

The state of the urine varied according to the  
degree

degree of fever; but I observed in it nothing that particularly requires to be noticed.

Among the symptoms that occurred only in a small number of the cases I saw were peripneumony, swelling of the submaxillary glands, swelling and erysipelatous inflammation of the face, anasarcaous swelling of the legs, and deafness. In one case the disease, at the end of a week, terminated in an intermittent; in another, an abscess took place in one of the ears; and in a third it was attended with a profuse discharge from the salivary glands.

In several cases, when the disease seemed to have almost entirely subsided, there suddenly came on a return of the former complaints, particularly of the head-ach, with increased violence, and sometimes with the addition of fresh symptoms. In three instances such a relapse took place a second, and in one even a third time, leaving the unhappy sufferers in a very debilitated state.

As in former epidemic catarrhs, so in this, the number of persons who died of the disease would probably be found to be very small compared with the number of those who were attacked with it. I heard, indeed, of several instances of its fatal termination; but only two  
such

such occurred among the cases that came under my immediate inspection. One of these patients was a man of about sixty years of age, who had for several years been infirm and asthmatic; the other was a young man, who had occasionally been subject to hæmoptoe. In both these cases the predominant symptom was pleurisy.

In the year 1782 a remarkable increase in the burials was found\* to take place after the disease had prevailed about three weeks; and at the period when its effects might be supposed to be over, the numbers were again reduced to what they were previous to the appearance of the disease. Nothing like this occurs in the weekly bills of mortality of the present year.

In the slighter forms of the disease recourse was seldom had to medical assistance; and when it prevailed with greater severity the indications of cure, as may be easily conceived from the account given of the symptoms, were extremely various, though, in general, sufficiently obvious.

Bleeding did not often appear to be necessary. The most general indication seemed to be to en-

\* See Medical Transactions, Vol. III. page 78.

courage a gentle moisture on the skin by a liberal use of tepid diluting liquors, occasionally assisted by antimonials in small doses, or the common saline draught. Many patients seemed to experience good effects from a purgative medicine given early in the disease; and emetics were commonly of great use, both by lessening the uneasiness at the pit of the stomach, and by relieving the chest in cases where the patients were troubled with much cough and mucous expectoration.

Opiates were of service in allaying the cough and other effects of irritation, and likewise in promoting the determination to the skin.

Blisters became occasionally necessary when the complaint was accompanied with much affection of the throat or chest; and likewise in a few cases, where, from the state of the pulse and other symptoms, the patients seemed to be in danger of sinking under the disease. In these last I recommended the use of wine.

In the course of the disease other remedies became at times necessary to regulate the state of the bowels, or to assist or moderate the expectoration; and when the fever had subsided, and the patients recovered slowly, the usual auxiliaries, such as change of air, exercise, tonics,

nics,

nics, &c., were recommended as circumstances seemed to require. In the greater number of cases, however, even of those in which the disease had prevailed with a considerable degree of severity, I observed, that when the symptoms had abated, the patients speedily recovered their former state of health.

December 3, 1788.

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II. *Of the epidemic Catarrh of the Year 1788.*  
 By George Bew, M. D. Physician at Manchester.

THE epidemic catarrh did not make its appearance here, this year, before the latter end of July\*. The first cases of it that came under my observation were of two gentlemen and a lady, who returned from London the evening of the 28th: they had suffered the disorder some time, and were not perfectly recovered.

\* Previous to the appearance of this disease the low nervous fever had prevailed, and in some cases proved fatal. Sore throats of the ulcerous kind had likewise affected some, particularly children, both in the town and neighbourhood.



On the 31st of July I was called to visit another gentleman, who likewise had returned from London, in the mail coach, the preceding evening. He had only perceived himself attacked the day of his departure; but the fatigue of travelling had very much aggravated his complaints. The day following his brother, a few years older, found himself seized with the symptoms of the disorder, which continued to the 5th of August, and were followed by a fevere fit of the gout, to which he had previously been subject.

On the 5th of August a nephew of the above gentleman, a youth about sixteen years old, was suddenly and violently attacked. His sickness was intense, and was followed by discharges of black and very offensive stools. An antimonial vomit was administered, which operated effectually, and by the evening of the next day he appeared perfectly recovered.

On the 6th, an older sister, who resided in the same house, was severely seized with the usual symptoms of the disease, except the diarrhoea; on the contrary, she had been some days costive. She continued extremely ill until the 16th, and remained in a debilitated state some time after.

And on the 7th another lady, younger sister to the above, was affected in like manner; but an emetic being speedily directed, she recovered in a few days.

I have been particular in distinctly noticing the progress of the disease through this family, all of whom were affected, as it shews the irregularity which marks not only the commencement, but also the duration of this epidemic.

From the 1st to the 10th of August this disorder proceeded very rapidly; few persons escaped without some symptoms of the catarrhal fever. All ranks and ages seemed alike subjected to its influence; nor did the prevalence of any other disorder whatever repel its attack: on the contrary, I had frequent proofs not only of the continuance even of diseases which originate from particular contagion along with this disorder, but likewise observed them to be much aggravated whilst the symptoms of this epidemic remained.

Towards the latter end of August the disease became less general, and by the beginning of September it seemed in a great measure to be declined. Some evident symptoms of this catarrhal epidemic have, however, at times, continued to appear in a few cases that have been  
submitted.

submitted to my care ; and so late as the 15th of October I was called to visit a gentleman and two of his children in the country, who were all affected with the particular symptoms of this disorder.

The epidemic catarrh of this year generally commenced with a sense of feebleness, and an unwillingness to any bodily exertion.

A stupor prevailed over the senses. In some cases acute pains were felt in the head ; but more frequently a dull sensation, accompanied with dizziness and a painful tightness of the breast, particularly in respiration. A pungent cough, without much discharge ; frequent sneezing ; painful effusions from the eyes ; together with a fulness and soreness of the mucous membrane of the nose and throat, and which seemed to extend to the stomach and along the intestinal canal.

These symptoms generally became worse towards evening, and the uneasy sensations more evident. Partial and irregular shiverings took place ; drowsiness ; wandering pains were felt along the extremities, which were for the most part cold and shrivelled.

In many cases the coldness of the body and extremities was not succeeded by heat, or much

evident increased action of the heart and arteries; but a tingling sensation was diffused over the surface of the body, and the exsudatory pores were peculiarly excited. Some degree of delirium succeeded, which was soon relieved by copious exsudations, and the sweat had often an offensive smell. The patient generally had little or no sleep.

The stimulus to discharge the urine was frequent, and the urine generally high coloured, in small quantities, and of an odour like the sweat, but seldom deposited much sediment. In most cases a diarrhœa took place sometimes with the other symptoms, or soon afterwards. The dejections were frequent, acrid, dark coloured, and very offensive.

In a few days, if the sweating continued uninterrupted, and the patient submitted to proper treatment, the cough, coryza, and excitement of the throat, &c. gradually declined, the urine began to deposit a more perfect sediment, and sleep was restored, though at first but slowly and imperfectly: and I generally observed, that, after the first return of sleep, the feebleness of the system became more evident to the patient, and the senses (particularly that of hearing) were much obscured; most of the patients  
that

that came under my care being affected with deafness.

From the commencement to the termination of the disease I seldom found the tongue dry or very foul, nor the pulse increased much above ten or fifteen strokes in a minute beyond its natural quickness. Some degree of appetite for food remained with such as did not suffer the disorder severely, and, unless the sweatings were very profuse, the thirst was not immoderate: but the strength of the body, and the perfect state of the senses, (particularly hearing, as has been remarked) was restored by slow degrees.

The indications of cure, in subjects where the epidemic catarrh was not accompanied with any other disorder, might readily be distinguished by the symptoms that have been described; and it must have been generally observed, that, in the greater number of cases, nature alone effected the cure by the usual increased evacuations\*.

Wherever I could administer an antimonial

\* This must have been the case with the majority of the lower order of people in this place; for neither the Infirmary reports nor the registers of mortality were increased in any comparative degree to the general prevalence of the disorder.

emetic

emetic at the first accession of the symptoms, I almost constantly found it put a speedy termination to the disease: first by exonerating the stomach, &c. of the contents, and afterwards either by determining to the surface, so as to assist the sweating, which always accompanied this disorder, or to the intestinal discharges, which, if not immoderate, were favourable to the cure\*. I mention antimonial emetics, because I observed the ipecacuanha root not only to operate with greater severity, but to produce some disagreeable effects: and indeed I am inclined to suspect, from attentive observation, that this emetic has been celebrated for efficacy and mildness of operation, which it does not deserve.

After the operation of the emetic, I usually directed neutral draughts to be given in an effervescent state, with a certain quantity of the ætherial spirit of vitriol and tincture of opium; and if the disorder did not retire, I ordered small doses of emetic tartar, with rhubarb, to

\* In some cases, as has been remarked, a costiveness took place at the commencement of the disorder, and then it became necessary to administer gentle purgatives; but with the greater number of patients a diarrhœa began with the other symptoms.

be repeated at intervals, and about a quarter of an hour after each dose to be followed by the neutral draughts. In some cases the opiate was only given with the evening dose. I did not employ blisters, unless the oppression in breathing, the cough, tightness of the breast, and pains in the side or head, were violent, and then I usually gave the camphorated julep along with the neutralised volatile alkali. But I mostly found my patients complain of the disagreeable flavour of the camphor; nor did I observe it produce any extraordinary effects. The blisters I always found serviceable in relieving the pains, the breathing, and the cough.

At first I forbade wine, unless much diluted, or made into whey; but I soon found that a glass or more of wine, according to the age or habits of the patient, might be taken not only with impunity, but with evident advantage: and though I did not allow full meals of animal food, I did not observe that a moderate quantity of broth or boiled meats, where an appetite prevailed, did any injury; on the contrary, I remarked those persons to recover the most speedily who preserved some relish for their food at the usual hours of repast, and especially towards the close of the disorder.

I had,

I had, on former occasions, remarked the unfavourable consequences of administering the Peruvian bark whilst the excitements of the disorder continued with any degree of violence; but, on the decline of the disease, I always found it effectual in assisting the recovery of the patients from the state of debility in which they were, for the most part, left after the other symptoms had retired; and I likewise observed it never fail to prevent the return of the disorder—a circumstance by no means unusual with those who did not conclude the cure with some preparation of the bark. The mode of giving it I thought most eligible, on account of the precarious state of the stomach, was in decoction, to which I added a certain quantity either of the acid or ætherial spirit of vitriol.

Bleeding was never directed by me, unless some symptoms, besides those proper to the disease, absolutely required it, and then it was employed with the most cautious circumspection. I had frequent opportunities of observing the ill consequences of lowering the system by copious bleedings; and though it might afford a transient relief of the pains and cough, it always tended to increase the debility and anxiety, and prolong the duration of the disorder.

But



But some accidental symptoms, particularly in cases previously subjected to pulmonary complaints, absolutely required some blood to be immediately taken away. I shall offer an instance of a gentlewoman of about fifty-five years of age, to whom I was called to visit in the country, and who had suffered much from asthmatic complaints, for which she had been accustomed to lose blood to relieve her breathing. Some days had elapsed, after she was first seized, before she apprehended the nature of her disorder. I found her much distressed with sickness; shooting pains in her head and back, and a pungent fixed one in the left side; an incessant cough; laborious respiration; a quick irregular pulse; dry skin; and a peculiar impatient look denoting the most painful sensibility. Her breathing was so much oppressed, that I immediately directed some blood to be taken from the arm, which instantly relieved her. A large blister was applied to the side, and medicines of the same indications I have before described were ordered to be given to her. The next day I had the satisfaction to find the blister had taken proper effect, and that the alarming symptoms were moderated. In a few days most of them were removed; and by the

tenth, from the time I first saw her, she was perfectly free from every complaint except extreme debility: from this she was in a short time restored by means of the Peruvian bark, given as I have before noticed.

Such were the symptoms which distinguished the epidemic catarrh of this year, and which succeeded nearly in the same order, though in different degrees of violence, with every one who was seized with this disorder.

But though the disease prevailed almost universally, I did not remark that the application for medical assistance was so general as in the year 1782. Perhaps the disease might not be so alarming to the apprehension of the Public, on account of its former appearances and effects being still fresh in every one's recollection; together with the most salutary mode of treating it. Many of the lower order of people considered it merely as a cold, and attempted to obviate the debility it induced by drinking and laborious exercise. Their attempts were not, however, always successful. The powers of the system were, for the most part, too much affected to allow of much exertion; and those who obstinately persisted to contend with the disease,

disease, most frequently suffered for their temerity\*.

The consequences of neglect, or improper treatment, particularly of intemperance and imprudent exertions of strength, did not often pass with impunity. Fevers of different kinds, but chiefly of the type now distinguished by the appellation of *typhus*, were exceedingly prevalent after the epidemic catarrh had, in a great measure, ceased to be general; but from which, by tracing the symptoms, the fevers might usually be found to have originated. In some cases extraordinary symptoms likewise followed the imprudent treatment I have just mentioned. I shall relate an instance which came immediately

\* I had, of the former, an instance in my own family. A servant man, about forty years of age, of a strong, healthy constitution, whom I usually employ in the garden, perceiving himself seized with the disease along with the other servants, determined to try to dissipate it by hard exercise, a mode of cure he had found successful in common catarrhal affections, and accordingly set himself to work on some of the most laborious parts of his employment: but he soon found himself too weak to persevere in his resolution, and, prudently desisting, returned to the house, and, with the assistance of proper treatment, was able to resume his business without danger.

under my notice, and which was very nearly terminating fatally.

A young woman, in the prime of life; and of an excellent constitution, who lived in the service of a gentleman's family in the country, was, together with her fellow servants, seized with the usual incipient symptoms of this disorder: but, to employ her own language, "she was resolved not to yield to it," and resolutely determined to try whether she could not overcome the disease by "hard working." She set herself the most laborious employments, such as cleaning the furniture and washing the rooms, and continued the conflict the whole day, notwithstanding the debility and profuse sweatings which accompanied her exertions. Late in the evening she changed her cloaths, and washed her hands and feet with cold water. The consequences were such as might be expected. The following account was given me by the gentleman who was first called to attend her:—

"Sunday, August 10th, about noon, found her affected with an extreme oppression of the chest, and great hoarseness, which might be heard at some distance every time she drew her breath. She complained of an extreme tightness of the breast, and apprehension

"sion

“ sion of expanding the chest on account of a  
 “ cough, which was so violent as to create a  
 “ sense of suffocation. Her throat felt dry,  
 “ and she had a pain about the præcordia.  
 “ Her body was tolerably open; but she had  
 “ frequent shiverings, followed by fever.”—  
 He took away about ten ounces of blood from  
 her arm, which seemed to give her relief, and  
 then applied to me for my advice and direc-  
 tions.

I saw her the following day. Though her  
 pain had been a little relieved by bleeding, her  
 breathing was become more difficult, and the  
 sense of suffocation and the dryness of her  
 throat were much worse, insomuch, that she said  
 she was afraid either to breathe or speak. Eve-  
 ry respiration was accompanied with a peculiar  
 rattling sound, like that of children affected  
 with the *suffocatio stridula*, and was very labori-  
 ous. Her skin felt hot and dry, and was of a  
 very florid red colour; and the pulse small and  
 frequent, about a hundred strokes in a minute.  
 She had sweat a little at different times in the  
 night, which, whilst it continued, relieved her  
 breathing a little; her sickness remained, but  
 she did not swallow with much difficulty. She  
 was attended with the most benevolent care;  
 and

and the lady whom she served had very properly kept her body moderately open with clysters.

During the two following days she continued in much the same state, the pulse sometimes lowering to 85 or 90. The sweating was encouraged by diaphoretic medicines; and I directed a large blister to be applied to the throat, and another to the region of the stomach. She had short slumbers, from which she always awoke greatly alarmed and agitated, and always shewed an aversion to being removed.

About five in the evening of the fifth day from the attack of the disorder she complained of unusual chillness of the back and extremities, together with a tremor of the limbs, and still more violent agitation of the whole body than she had suffered before. Sudden vivid flushings of the face succeeded, which were alternated with coldness and shivering. Her breathing became more laborious, quick and rattling. She had a peculiar quickness in her eyes and looks, but was perfectly composed and sensible, though she uttered the few words she attempted to speak with great difficulty. Her arteries vibrated with too much irregular rapidity to allow me to judge of the pulse; and she seemed resigned to the termination, which herself,

self, as well as her attendants, considered as inevitable. The directions I had given had been strictly followed, and her medicines administered with the greatest punctuality.

I directed her to be gently raised, and, as she now could not swallow but with great exertion, I gave her wine by a tea-spoonful at a time, allowing her intervals of rest; at the same time I directed her feet and legs to be chafed with warm hands. After about twenty minutes had elapsed, and half a glass of wine been gradually swallowed, the pulse beat with less irregularity; a warmth began to diffuse itself through the extremities; she was able to swallow with less difficulty, and she breathed and articulated with more freedom. A copious sweating followed soon after, and the rattling of her breathing ceased from that time; her pulse became tolerably distinct and soft, and about three in the morning she dropped into a calm slumber, which continued many hours.

The next day I found her, in a great measure, relieved from her complaints; a gentle diaphoresis had succeeded to her slumbers, and she only felt herself feeble and disposed to sleep. A decoction of the Peruvian bark and vitriolic acid were directed to be given her at intervals;

and

and in a few days she was able to attend to such employments in the house as did not require much exertion.

It would be a pleasing employment to trace any favourable effects resulting from this almost-universal epidemic; and in one case that came under my notice the disorder has been followed by flattering circumstances.

A single lady, of a delicate habit, who, during a long series, had experienced severe and frequent attacks of chronic rheumatism, and for some years past had been threatened with hydropic complaints, for which the digitalis had, in vain, been given in every form that could be contrived, but which had been suspended by medicines of gentler operation, was seized with the epidemic catarrh the beginning of August, and the symptoms, particularly the sweating and diarrhœa, were very severe. Her evacuations were so great, and she was consequently so much enfeebled and exhausted, that I found it necessary to direct cordials along with the other medicines; and as opium in no preparation whatever would agree with her stomach, I ordered wine to be often administered, sometimes in whey, and sometimes mixed with water and spices.

These



These evacuations continued almost incessantly from the 7th to the 14th, when they gradually abated, and I had the satisfaction to find her less debilitated than I expected. In a short time she had recourse to her former medicines, to which, for a considerable time, she had been obliged occasionally to apply, and she acquaints me, with no small pleasure, that she finds them prove more efficacious since her recovery from the catarrhal disorder than they had ever been before. Her swellings are in a great measure subsided; her appetite and strength much restored; and she is freed from a painful depression and anxiety that had, during a long time, constantly embittered her life.

I have hitherto taken no notice of the weather previous to and during the prevalence of this epidemical disease in Manchester: nor did I remark any particular state in the sensible qualities of the atmosphere that alone could be supposed to produce or even propagate it. Perhaps catarrhal diseases, in general, are not so much derived from a certain irregularity and moisture of the air as has been formerly imagined; the different recurrences of this disease having happened in no certain state or quality

of the air, nor particular time of the year\* : and I am led to believe that the epidemic catarrhs of former periods must have been generated and diffused by other means than the influences of seasons and atmosphere. In the description of the weather prefixed by Dr. Whytt to the accounts of the epidemic which prevailed in the southern parts of Scotland during the year 1758 †, and which seems to have resembled the epidemic catarrhs of 1775, 1782, and 1788, the states of the atmosphere do not appear to have had any thing more uncommon than might be expected from the situation of a country surrounded by the ocean, intersected with rivers, lakes, and large arms of the sea, with numerous ports and harbours where ships arrive from all countries. That it did not extend much beyond the confines of Scotland might possibly be owing to the intercourse between

\* In England,

The epidemic catarrh of 1775 began in November ;

Weather warm and moist.

————— of 1782 began in May ;

Weather cold and wet.

————— of 1788 began in June and July ;

Weather not uncommon.

† Vide Medical Observations and Inquiries, Vol. II.

the

the formerly-divided nations not being, by any means, so general as it is at present.

But not only in the above-mentioned, but in all the epidemical catarrhs, of which we have any clear and rational accounts, there seems to have occurred a striking resemblance in the principal specific symptoms, as well as in the commencement, progress, and decline of the several periods of the disease\*.

The memorable *Sudor Anglicus* was probably only a more malignant species of the same epidemic disorder; the chief symptoms, according to the best accounts transmitted to us, bearing a strong resemblance to the catarrhal epidemic fevers of our own times. Like these, it was almost universally contagious †, was attended with

\* The plague of Athens, according to the celebrated account of Thucydides, began with sneezing, hoarseness, cough, pains in the breast, and vomiting, &c.

† “Tanta fuit febris hujus malignæ initio truculentia, ut quamprimum urbem aliquam invaderet, singulis diebus quingentos aut sexcentos occuparet. . . . Corrupti, statim languore dissolvebantur & animo deficiebant eum summo virium languore, inquietudine καρδιωγμᾶ, capitis dolore, pulsu crebro, celeri, inæquali, cordisque palpitatione maxima. . . . Sudore disfluebant perpetuo & copioso.”—Sennert. T. II. p. 207.

with great languor and prostration of strength, and was of transient duration. It is said “ its manner of attack was always the same ; that “ in its different recurrences the symptoms were “ the same ; and that it rarely staid more than “ a week in a place\*.” Even its malignity might be aggravated by the deplorable state of the nation, the distraction of the times, and the barbarous treatment of the sick. Fatal as the disease itself was, we are told that “ more were “ observed to die by the hands of empirics “ than by the disorder †.”—Slaves to credulity and the prejudice of opinion, the physicians, or more properly the pretenders to physic, of those times, seem to have studied to counteract and subdue, rather than follow and assist, the salutary efforts of nature. The sweating sickness had made repeated visits, and “ killed more “ than the nation was supposed to contain at “ one time ‡,” before they perceived and avail-

“ *Morbus iste brevis fortitus & periodus, tam in morbi ipsius crisi, tam in tempore duratione ipsius.*”—Lord Bacon, Vol. V. p. 231.

\* Vide History of Air, Epidemics, &c. Vol. I. p. 209.

† Ibid.

‡ Ibid.

ed themselves of the means the disease itself indicated as the proper mode of cure, and which they too often defeated by fantastical forms, and rendered fatal by pursuing with absurd and merciless rigour\*.

Those authors who have written on the history and cure of the Sudor Anglicus have uniformly attributed the cause of it to some pecu-

\* “ ————— primum vero ex Britannicis locis terras maritimas Hollandiæ ac Zelandiæ pervagata, Antwerpiam venit, ac celerime in Flandriam, totamque Brabantiam sparsa, uno die sudoris infanda cluvie hominum multa millia suffocabat. His aderat ea dementia, ut sese lactis ac linteis infui paterentur, omni arte ac vi eliciendum sudorem arbitrati: . . . Imo interea dum alter alterum strangularet, qui præfentes aderant, mutuo hortabantur ne se negligerent, urgente morbi ferociâ, ne victi pretio, aut precibus se ante tempus liberarent. Verum quando ad illos ordo pervenerat, ut sudandi tempus videretur, confuti similiter, & violenter operti clamitabant miseré, obtestabantur Deum atque hominum fidem, sese dimitterent, se suffocari injectis molibus, sese vitam in summis angustiis exhalare; sed assistentes, has quærelas ex rabie proficisci, medicorum opinione persuasi, urgebant continué, usque ad 24 horas, id enim erat sudandi spatium præfinitum, ante cujus circuitum evasere quam paucissimi, tertia mortalium pars errore proprio, atque insaniâ misere strangulata, vitæque cum gemitu fugit indignata sub umbras.” — *Gem. cosm. (de Sudore Angl. ap. Schenk.)* lib. i. cap. 8.

liar states of the seasons and atmosphere\*, and seem to have busied themselves in contriving curious processes to alter and amend the air, instead of attending to the actual operations and progress of the disease †. The progress of the contagion may, perhaps, be more certainly traced by attending to the historical transactions of the times. The sweating sickness is said to have first appeared in the army of the Earl of Richmond, afterwards Henry the Seventh, who landed at Milford on the 7th of August, 1485, with a few French soldiers. They are described as being ill armed; and in all probability were no better furnished with raiment, food, or other accommodations. Little attention could be paid either to cleanliness or health during the short and perilous progress of the army through Wales to the memorable fields of Bosworth.

\* “ In Britannia insula genus est pestilentis febris, & contagiosæ . . . est autem non contagiosa solum de uno in alium, sed vagatur etiam de civitate in civitatem. Quapropter in vitio aëris præcipue enasci censendum est.” —  
*Vide Fracast. de Morb. contag. Lib. ii. c. 5.*

† “ Quapropter venenosam istam aëris qualitatem, si lubet aut prohibere (:d quod multo est optabilius) aut proficere,” &c. — Fernelius, *Consil. 69. ad pest. Angl. præcaut. emend. aeris.*

The decisive battle was fought on the 22d of the same month. Henry and his followers arrived in London on the 29th, and on the 22d of the next month the sweating sickness was epidemical in that city.

But though the epidemical catarrhs, in whatever manner or from whence they may originate, evidently seem to be contagious from infection derived from the human body, rather than from any peculiar state of the atmosphere; yet the various states of the atmosphere may have great influence in promoting or retarding their progress and malignity. I observed those patients recover the soonest who were confined to warm, but not very close rooms; and, on the contrary, exposure, especially to the nocturnal air, always aggravated the symptoms of the disorder. Of this I had myself experience. Though I daily attended a considerable number of the sick, I escaped without contracting the disorder until the 14th of August. In the evening of that day, finding myself affected with lassitude, coryza, &c., I took an antimonial emetic, and was about to follow it with some diaphoretic medicine, and retire to bed, when I was summoned to visit a person in the country with such earnestness, that I thought it my duty to comply.

ply. I had about five miles to proceed, and my attendance was necessary some hours; and though I took every precaution to secure myself from the influence of the air, which was moist and warm, I had convincing proofs of the injury it occasioned. I had the symptoms common to this disorder with greater severity than I observed in any other case: but they afforded me the means of marking the nature and progress of the disease with a degree of minuteness that I might not perhaps have so fully derived from the most attentive observation of others.

*Manchester,*  
Nov. 29, 1788.

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III. *An Account of the successful Employment of Catgut in a Case of Fistula in Perinæo. Communicated in a Letter to Dr. Simmons, F. R. S. by Mr. G. Wilkinson, Surgeon at Sunderland, and Member of the Royal College of Surgeons of Edinburgh.*

THE subject of this case was a sea-faring man, aged about forty-seven years. In the year 1786, eight months before I saw him, he had contracted a gonorrhœa, and in the course



course of this complaint, in consequence, as he supposed, of exposure to violent cold, inflammation had taken place in the perinæum, and the latter had swelled to an enormous size. On the fourth day a disposition to gangrene began to take place; and on the eighth or ninth one half of the scrotum, and part of the perinæum, had sloughed off.

The parts soon acquired a disposition to heal; but from this period the urine began to flow through an opening in the perinæum, and very little of it passed through the penis.

At the time he applied to me I found two apertures with callous edges; one of them in the posterior part of the scrotum, which it had contracted into several folds or rugæ; the other near to the anus, in the membranous portion or bulb of the urethra, the whole of which was much indurated; and it was from this part principally that the urine escaped.

I could not learn that any attempt had been made to dilate or open the natural passage for the flow of urine; but from the moment the patient came under my care I lost no time in attempting to accomplish this. I accordingly tried to introduce bougies of different sizes, and some of them were retained in the urethra, against

the obstruction, for about two hours in the day, for several days together. Some of these bougies had a small wire in their center, and I even attempted the introduction of a fine small leaden catheter; but I did not perceive that any progress was made in removing the obstruction.

At this period, happening to mention the case to an ingenious surgeon of this place, he advised me to make trial of the catgut; adding, that he had seen it succeed in removing a stricture of the urethra of many years standing, after every other effort had failed.

I immediately determined to have recourse to this method, and, after several trials made with different catguts, (the ends of which I had previously smoothed with a file and oiled) I at length succeeded so far as to introduce, beyond the obstruction, the third string of a violin. This remained in the urethra about two hours; and the passage being dilated by the expansion of the string, I passed in a longer one, which remained in nearly the whole night; and the day following I was enabled to introduce with ease a small bougie, which passed as far as the bladder.

The obstacle being thus got over, the bougies were increased in size, by degrees, to that of a  
large

large quill. The hollow bougie was likewise tried, but found not to answer so well as the other. The patient's belly was kept open; and the irritation occasioned by the bougies (for he frequently retained them the whole night, and the greatest part of the day) was relieved by opiates. Mercurial ointment was rubbed in about the perinæum; and small doses of calomel were given internally. Under this mode of treatment the urine continued to pass freely through the urethra, and the cure was completed in about six weeks.

This method of removing obstructions in the urethra by means of catgut, though recommended by Le Dran in his operations and consultations in surgery, and mentioned by Sharp in his critical inquiry into the present state of surgery, is but little noticed by later writers, and, according to the information I have been able to collect, is not generally known.

These considerations have induced me, Sir, to communicate to you this instance of the success attending this mode of treatment, to be inserted, if you think proper, in the London Medical Journal.

Since this case occurred, I have had an opportunity of trying, with success, the effects of

the catgut in two other instances of stricture of the urethra from venereal causes.

Sunderland,  
September 15th, 1788.



IV. *Case of a suppression of urine, which terminated fatally; with an account of the appearances on dissection. Communicated in a letter to Dr. Simmons, by Mr. James Stevenson, Surgeon, at Egham, in Surry.*

**M**R. Stephen Boulton, coach-maker, at Staines, in Middlesex, aged sixty-three years, and of a robust habit of body, was seized on Friday, November the 25th, 1785, with violent forcing pains at the bottom of his belly, and an incessant desire to make water, tho' unable to void a single drop. These symptoms were accompanied with a hard throbbing pulse, beating an hundred and twenty strokes in a minute, and with great tension over the whole abdomen.

He

He was extremely thirsty, and his tongue was very dry; he complained also of sickness, but did not vomit.

After taking away twenty-four ounces of blood, an oily emollient clyster was directed to be administered every four hours, and four table spoonfuls of a purgative mixture composed of soluble tartar, manna, and infusion of fena, to be taken every two hours; recourse was likewise had to warm bathing.

On the morning of the 26th his pain was somewhat diminished, altho' he had had no stool nor any discharge of urine. The catheter was now introduced, but without effect, the bladder seeming to be quite flaccid.

His pulse being still very strong, twelve ounces more of blood were directed to be taken away, and the purging medicine, clysters, and warm bath, were repeated.

Dr. Lind, physician at Windsor, who visited the patient this day, in the evening, recommended a perseverance in the plan already adopted, with the addition only of half a drachm of diuretic salt, to be given every six hours in four table spoonfuls of a common saline mixture.

On the 27th his pulse was at ninety, and he had had two stools, but had made no water; the catheter was therefore again introduced, but with no better success than before.

On the 28th the heat of his skin was much increased, and his pulse fluctuated between an hundred and an hundred and twenty strokes in a minute. In consequence of his walking on the cold floor, about an ounce of urine, of a natural colour, was discharged drop by drop. During this and the preceding day the purgative and diuretic medicines were continued, with the occasional use of oily clysters and the warm bath; and in the evening, as the pain in the lower part of the belly was much increased, six leeches were applied, which bled profusely.

On the 29th the pain was much relieved. He had had three purgative stools, and a little urine had drivelled on the sheets; but still the tension of the belly continued.

On the 30th he had nine stools of a dark colour, but voided no urine. His belly was now painful to the touch; his pulse was much increased in quickness, and he was slightly delirious.

December 1st, he had dosed a little in the night, but he now voided his stools involuntarily, and

was

was seized with subfultus tendinum, hiccough and delirium. In this state he continued till his death, which happened on the 4th of December, in the morning.

The body was opened about eight hours after death. The intestines were found perfectly free of disease, excepting one blue spot with a deep red tinge on the curvature of the duodenum. The state of the kidneys, ureters, bladder, and all the parts contiguous, was very particularly attended to; but not the least appearance of disease could be discovered. To our great surprize, however, more than a pint of pale, inodorous urine was found in the bladder, which appeared to have been very recently secreted from the kidneys; the catheter having been introduced the night before the patient's death, without the desired effect.

The stomach was next examined.—The mucus on many parts of it was intirely gone, many spots were observed of a deep red, inclining to a blue colour, and the tip of the finger made holes through its substance with gentle pressure.

The gall-bladder and ducts had a natural appearance, and altho' two stones of a large size were found in the former, there was not the smallest inflammation perceptible on either of these

these parts. From all these circumstances, therefore, we concluded, that the original symptoms of Mr. Boulton's disease could not be attributed to any other cause than the local affection of the stomach.

During the progress of this illness, the cause was considered as obscure, but it was agreed by all, that the antiphlogistic plan ought to be pursued, and so it was, very steadily, until symptoms of debility made it manifestly improper.

In short, this disease put on such appearances as left us quite in the dark as to the primary mischief. It militated with the characters commonly laid down of a local affection of the stomach, kidneys, or their appendages.

The true cause could only, I presume, be discovered by the inspection of the body after death, and it most obviously is proved, that it was an idiopathic inflammation of the stomach.

It turned out upon more enquiry that the patient had drank a glass of a very acrid composition\* the morning he was taken ill; and it is scarcely to be doubted that this was  
 actually

\* This mixture was composed of horseradish, mustard seed, garlic, rue, marshmallow, pimpnel, aniseed, and rhubarb, distilled twice in brandy. I was not able to ascertain the quantities of the several ingredients; but in the distilled liquor



actually the immediate cause of his death. If this conjecture is well founded, I presume the case will be allowed to differ in some of its circumstances from any upon record, as the inability to make water was immediate and permanent. Is it not probable, that the excretory ducts of the kidneys suffered a sympathetic constriction from the stimulus applied to the stomach?---Is it not likewise remarkable, that the patient should never have complained of any pointed, acute pain in the region of the stomach; and that he had no vomiting of the ingesta?---It is true he complained of sickness, yet never vomited; and the pain was confined to the hypogastric region, and chiefly to the part just above the pubis.—I never heard of similar effects from any fatal poison, whose operation was immediately upon the coats of the stomach, without its producing acute local pain, and violent retching, a burning heat in the epigastrium, a rejection of the ingesta, and quor, which was so uncommonly acrid and pungent that I should have thought it hardly possible for any person to swallow an ounce of it, the taste of the horseradish was extremely predominant. This poor man, who often tried his skill upon others to cure the evil, rheumatism, and other diseases, had distilled between thirty and forty gallons of this liquor, for the purpose of curing his friends, but fortunately for them took the first fatal dose himself, for a rheumatic complaint, to which he had been frequently subject.

commonly, I believe, hiccough. All these symptoms this patient was free from, and yet manifest inflammation, in an extensive degree, was evident upon inspection of the body.

Laurel water, as is well known, destroys animals, but without producing any evident local mischief in the stomach, its operation seeming to be entirely on the nervous system. The Fox Glove seems to have a power of the same kind, and so perhaps have many other vegetable poisons; but I am acquainted with none whose effects exactly resemble those of the composition which proved fatal in the present instance.

Altho' I had no doubt, after the discovery of this poison, that it had been the cause of Mr. Boulton's death, I procured some of it, and gave two ounces to a dog of a middle size, about ten o'clock in the morning. The dog, after swallowing this dose, ran about for the space of an hour, and then slept for about two hours, when he waked apparently in great pain, refused both victuals and drink, and was convulsed. About twelve o'clock at night, I was inclined to put an end to his misery, but for the sake of the experiment it was determined to wait the final effect of the poison, which probably took place soon after,

after, as he was found cold and stiff at five o'clock the next morning.

I opened the dog, and the appearances were nearly the same as those observed in Mr. Boulton's stomach. The only difference in the two cases was in the distance of time from the administering the poison to the death. The dog never vomited altho' he swallowed more than Mr. Boulton, for the glass the latter took it from could not hold quite two ounces.

*Egham,*

Oct. 20, 1788.

V. *An account of a case of Amaurosis cured by Electricity. Communicated in a letter to Dr. Simmons, by Mr. Miles Partington.*

**A** NN Mackarel, of Shiffnal, in Shropshire, aged ten years, had been seized, about eleven months before I saw her, with a violent pain in her left temple, which was soon followed by a remarkable blackness of the skin of the eyelids of the same side, extending towards the cheek bone. To this, in a few days, succeeded a dropping of the upper lid over the eye, ac-

accompanied with extraordinary sensations in the adjacent parts. Her own comparison of it to 'something galloping' about, may, perhaps, give the best idea of the symptom.

Application was directly made to an experienced surgeon, who gave her nervous medicines, and advised her frequently to go into the cold bath. In four or five weeks the lids of her eye returned to the natural state, and she was soon after affected with loss of sight; the external appearance of the eye remaining without blemish.

She continued the use of the cold bath some time longer, and persisted in a long course of medicines without any relief. Nine months had now elapsed without any returning vision, and as she was in good health, with the right eye unimpaired, her parents consoled themselves with the hope that no farther misfortune would take place. In this, however, they were deceived, for, on November the 7th, she began to complain of pain and sensations, exactly similar to the symptoms which first attacked her; and her parents in the greatest distress came with her to London for farther advice. They carried her to Mr. Pott on Saturday the 15th of last November, and

and by his recommendation brought her immediately to me to be electrified. It was then I received from them the account I have been giving of the progress of the disease.

On examining her eyes I could perceive no imperfection in either, except that the left iris remained without motion upon interposing bodies between it and the light of the window; but I could not satisfy myself that it was præternaturally dilated in any degree. The eye, however, was in such a state of darkness that she could not discriminate the window from any other part of the room when the right eye was covered up in which there had, as yet, been no defect; but from the pain and sensations just now mentioned, it was feared that the sight of this eye also might soon become affected. In every other respect she appeared to be in good health.

I began the operations by placing her in an insulated chair, communicating with a patent electrical machine, by Nairne, the cylinder of which is eleven inches in diameter. The prime conductor was connected with a large Leyden jar, containing four feet of coating, disposed in the manner I have described in the third edition  
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of Cavallo's treatise on electricity ; and when the jar was fully charged I drew off the contents with a metallic rod, terminating in a wooden point, from the orbits of the eyes, till the jar was exhausted to three degrees of Henly's electrometer, when the remaining part of the charge was drawn off in sparks from the left temple and superciliary process. I proceeded much in the same manner during the course, which consisted of thirteen operations, one each day, from Saturday the 15th to Thursday the 27th of November, and on Monday, December the 1st, she went into the country with her sight perfectly restored, and free from every complaint.

The circumstance which renders this case particularly deserving of attention is, the quickness of the recovery ; for during the second operation, she perceived an extraordinary glare of light in the room, and on moving my hand before the eye, she could describe the direction of its motion. Upon her going out of my house she discerned many objects in the streets ; and, in the course of that day, she had a sensation of weariness, with great pains in both legs, which was immediately attended with perfect vision. She came to me the third morning with the sight as clear as at any  
part

part of her life, and never had the smallest interruption to this fortunate event to the day of her departure.

*Charles-Street, Middlesex Hospital,*  
December 6, 1788.

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VI. *An account of the preparation and use of the Phosphorated Soda; being an abstract of a paper on that subject, inserted in the Journal de Physique for August 1788, by George Pearson, M. D. member of the college of physicians, physician to St. George's hospital, and lecturer on physic and chemistry in London, with considerable additions, by the author.*

THE new facts contained in this paper relate either to the chemical properties of this double salt, or to its use as a purgative.

It appears that M: Lavoisier united the acid of phosphorus with the fossil alkali, but without having succeeded in obtaining crystals from the combination. This compound, he says, was gummy, gluey, and of the consistence of turpentine, &c.

M. Fourcroy confirmed the result of M. Lavoisier's experiment.

M. Sage

M. Sage differed from these two chemists in obtaining non-deliquescent crystals, by combining the acid of phosphorus with the fossil alkali, but the other properties or figure of these crystals he does not describe.

Mr. Klaproth relates that he composed a salt similar to the sal mirabile perlatum of Haupt, or the sal fusibile, with the base of natron of Rouelle, by combining this acid with the above alkali; the figure of which double salt, however, is totally different from the salt I composed of the same substances.

Lastly, Mr. Proust having made a lixivium of the salt for making phosphorus of urine, in order to obtain the fusible or microscomic salt, he procured parallelogramic crystals, which he concludes were composed of an acid analogous to the sedative salt that, united with the soda, forms the sal fusibile with the base of natron, whereas the microscomic salt is principally phosphorated volatile alkali. Professor Bergman adopted this opinion, and admitted this salt, supposed to be analogous to the boracic acid, as a particular acid, and gave it a place under the title of the *Perlate Acid*, in his tables of single elective attractions. M. de Morveau considered this substance in the same light, and called it,

in



in his dictionary, *Acide Ouretique*. Afterwards this fusible salt, with the base of natron, was decomposed and shewn to consist, not of a peculiar acid, analogous to the sedative salt, but of the phosphoric acid and fossil alkali.

These were the facts already discovered concerning the phosphorated soda, when I made it the subject of investigation. The salt I composed, by the combination of the phosphoric acid with the sal soda, is evidently very different in most of its qualities from that combination made by the above chemists; and also different from the sal fusibile with the base of natron, of Rouelle, Proust, &c. and from the perlate salt of Haupt.

In order that other inquirers may account for the difference in the results of the experiments, I shall relate particularly the manner in which I composed the salt which is the subject of this paper.

1st. The phosphoric acid was procured by dephlogisticating phosphorus by the nitrous acid. Five hundred grains of phosphorus, added, in small quantities, successively, to three or four times that quantity of the nitrous acid, the specific gravity of which was 1.5 and diluted with distilled water, afforded, on evaporation, one ounce and two drachms measure, or about 1100

grains, in weight, of a transparent brown fluid, which had the unctuousity and consistence of oil of vitriol; its specific gravity was 1. 80 to 1. 87. Undoubtedly by this method the phosphoric acid is obtained in the greatest degree of purity, but the salt prepared with it must necessarily be very expensive, and it has been found, that the lixivium of the acid of bones evaporated to a due degree of specific gravity, will answer equally well; for then it contains little or no vitriolic selenites, and consequently no glauber's salt will be formed and mixed with the phosphorated soda. But attention should always be paid by the manufacturer to the figure of the crystals; and if he perceives any of the shape of glauber's salt, such crystals may easily be removed.

After procuring the phosphoric acid in the above way, I dissolved 1400 grains of crystalized soda (obtained by decomposing marine salt, with litharge, at Mr. Turner's manufactory) in about 2100 grains of distilled water, heated to 140 or 150°. of Fahrenheit's Thermometer, to which solution I added, by degrees, 500 grains of the above acid of decomposed phosphorus, and the effervescence having ceased, and the mixture boiled a few minutes, I set it to stand in a shallow

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low vefſel, in a temperate heat of the air, and thus rhomboidal cryſtals formed at the bottom of the vefſel, the quantity of which was from about 1450 to 1500 grains. After having, by repeated evaporations, obtained this weight of rhomboidal falt, a ſediment or liquor remained which would not cryſtallize; this, when dry, weighed from 150 to 200 grains.

From the quantity of fal ſoda required to form the above weight of double falt, the manufacturer will readily calculate the expence of it; for that of the acid of bones is very well known. It is thought proper to make another obſervation in this place, of great conſequence, viz. that great care muſt be taken to uſe pure fal ſoda, at leaſt, that there be no vegetable alkali mixed with it; for in this caſe there is reaſon to believe, from ſpecimens of it now in the market, that this double falt will contain the vegetable alkali, and on that account be rather diſagreeable to the taſte. It is not eaſy to perceive the contamination with the vegetable alkali, if the manufacturer uſes the falt from barrilla, even in its cryſtallized form; a portion of pothaſh being ſo intimately mixed with the foſſil alkali as not to be entirely ſeparable by cryſtallization. We cannot be certain of

avoiding the mixture of the vegetable with the fossil alkali, if the barilla alkali be employed. Perhaps the only pure aerated fossil alkali in the market is that prepared by Mr. Turner, in his extremely ingenious process of decomposing sea-salt by litharge. It was with his fossil alkali that I prepared the phosphorated soda possessed of the qualities here described. This precaution with regard to the choice of the alkali, used in manufacturing this salt, seems particularly necessary, lest a most agreeable and useful medicine should be lost by the Public, in consequence of want of information, or motives of gain.

If 150 or 200 grains of the phosphoric acid more than the quantity above mentioned (viz. 500 grains) be added to 1400 grains of the sal soda, the only difference in the result will be, that the liquor remaining after the crystallization, is an acid, mucilaginous liquor, which reddens turnsole juice, &c. and with more fossil alkali forms phosphorated soda.

2dly. If, on the contrary, 100 or 200 grains of sal soda more than the above quantity (viz. 1400 grains) be added to the quantity of acid already mentioned (viz. 500 grains) the only difference in the issue of the experiment will be that the fluid remaining after the crystallization

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is completed, contains superabundant fossil alkali, which will form phosphorated soda, on the addition of more phosphoric acid.

3dly. Dissolve 100 grains of phosphorated soda in an equal quantity of boiling water, and add 5, 10, or 20 grains of acid of decomposed phosphorus as above described, and, on crystallization, phosphorated soda will be found in an acid liquor which will redden syrup of violets and turnsole, effervesce with aerated alkali, and shew no property indicating a chemical union between this acid and the double salt.

4thly. On adding, in different proportions, the sal soda to the phosphorated soda, I did not perceive any chemical union between them, but on crystallization a mixture of phosphorated soda in rhomboidal crystals, and of sal soda in differently figured masses.

These four observations appear to be decisive, that the phosphoric acid and sal soda unite together only in *one* proportion, by which the rhomboidal salt here treated of is formed; and that if the perlate salt of Haupt, and fusible salt of Rouelle and Proust, are composed of the phosphoric acid and fossil alkali, they cannot unite with a fresh quantity of fossil alkali; or, if they can unite with this alkali, it is an error to affirm, that they  
 consist

consist of the acid of phosphorus and fossil alkali. Mr. Klaproth's observation cannot be just, viz. that the phosphoric acid, added to the phosphorated soda, forms a compound which changes syrup of violets green; and that phosphoric acid, with excess of fossil alkali, composes the fusible salt, with the base of natron of Rouelle; and lastly, that the salt observed by Mr. Proust, supposed to be analogous to the boracic acid, might be produced by taking away the excess of soda in the fusible salt of Rouelle, by the addition of vinegar, or phosphoric acid.

The size of the rhomboidal crystals is various, according to the quantity of the ingredients, the quantity of water, and the temperature of the atmosphere. The largest and most exact rhombs form in warm weather in such a quantity of water as holds much of the salt in solution; for, at this cold season (December) the crystals are small and very imperfect. The manufacturer therefore, who wishes to prepare this salt in the neatest manner, should crystallize, in winter, in the heat of a stove, of about  $90^{\circ}$ .

The most perfect and regular crystals were about one inch in length, and three-fourths of an inch in breadth. They had six tetrahedral surfaces of a rhomboidal figure; the angles being measured

as exactly as possible with a goniometer\*, were  $60^{\circ}$  and  $120^{\circ}$ .—the solid angles were equally  $60^{\circ}$  and  $120^{\circ}$ ; so that the extremity of the crystal presented a trihedral pyramid, the angles of which were  $60^{\circ}$ . This double salt has no alkaline taste, altho' it sometimes changes syrup of violets green; its flavor in water and mucilaginous liquids, as in broth and gruel, is that of common salt, without the least mixture of any nauseous or bitter taste. It effloresces very speedily in the heat of the hand, or in a dry and warm room; but its crystals are permanent in close vessels, or even in a cool and moist air. In its crystallized form it contains about  $\frac{1}{8}$  its weight of solid water; so that less than half the weight of the deaquated salt will produce the same purgative effects as above twice its weight when crystallized.

From six to ten drachms of this rhomboidal salt operates as a cathartic, with not only as great mildness, but perhaps with less irritation than any other purgative. This dose, in a pint of gruel or broth, without any common salt, renders them agreeably salt. It serves the purpose

\* An instrument, called also the angrometer, invented by M. Romé de Lisle.

of giving the flavor of common salt, and resembles it so much, that many patients have taken this purgative in these liquids without perceiving that they were not flavoured with sea-salt. This quantity of phosphorated soda in half a pint of gruel or beef tea, makes them unpleasantly salt, altho' not nauseous, to most people. Experience has shewn that in many cases, where the stomach was in so irritable a state that any other purgative salts would be immediately rejected by vomiting, or occasion intolerable nausea, the patients could retain, with little or no attending sickness, the phosphorated soda given in dilute solution, as in beef tea, barley water, &c.

It must be remembered, that this salt is very unpleasant exhibited with sugar, or in any distilled waters, *e. g.* mint, peppermint, &c. It is as disagreeable as common salt with any saccharine liquids, or distilled waters. But, like common salt, its taste is agreeable to almost all palates in any insipid, or mucilaginous liquid.

The phosphorated soda has been found particularly acceptable to habits that are naturally costive, or rendered so by opium and other medicines, for which state it is very disagreeable to take the purging salts in use; and yet, the nature of their disorders, as in hectic cases, would not  
allow



allow any other kinds of laxatives. In such cases from three to six drachms in a pint of broth or gruel, in the course of a day, has removed their costiveness, without, at the same time, their palates being offended or stomach rendered uneasy.

The phosphorated soda is not so purgative as an equal weight of Rochelle salt; on account of the greater quantity of water which the former contains: nor perhaps is it in most constitutions quite so active as the glauber salt, in which there is also above  $\frac{6}{10}$  solid water, but it is found that in doses of from six to ten or, at most, twelve drachms, it is generally a pretty considerable purgative.

In the present state of chemistry the phosphorated soda cannot be manufactured at nearly so little expence as the glauber salt, nor even as the Epsom salt; but it is a happy circumstance for the Public, that it is already prepared at a price not much higher \* than the Rochelle salt, or soluble tartar; and this places an agreeable medicine within the compass of most patients, to whom palatableness is any great object.

\* Mr. Willis offers the phosphorated soda for five shillings a pound.

The demand for this new salt has occasioned several manufacturers, besides Mr. Willis, to prepare it. The salt I have seen prepared by him, in the summer, was well crystallized, very neat, and apparently free from any extraneous substance; but altho' I have entire confidence in his fidelity, and the best opinion of his accuracy, yet I cannot help expressing a wish that he would employ (if he does not do so already) the fossil alkali, obtained by decomposing sea-salt or glauber salt, having, as already explained, reason to believe this article is liable to be contaminated by the mixture of the vegetable alkali always in the barilla. The composition of this salt, however, with the alkali of glauber or sea-salt must necessarily render it more expensive.

VII. *An account of the effects of the Astragalus exscapus Linn. in the cure of the Venereal Disease; in a letter\* from A. Crichton, M. D. to Chr. Girtanner, M. D. corresponding member of the Royal Society at Gottingen. Translated from the German.*

**A**S you seem, my dear friend, very anxious to get information concerning the use and effects of the astragalus exscapus, and have requested me to send you my notes of the cases in which I saw it employed, during my stay at Vienna, I communicate them to you with great pleasure. I am fearful, however, that the cases will not appear to you sufficiently accurate, as I had not time to write down the daily changes produced by the remedy, and have omitted to mention in my journal the temperament and habit of body of the several patients. You will find nothing more than their ages, their symptoms at the time of their admission into the hospital, the length of time the medicine was employed, and the effects which might fairly be attributed to its use.

\* This letter is extracted from the first volume of a treatise on the venereal disease, by Dr. Girtanner, lately published at Gottingen. See the catalogue of books.

Before I give you these brief notes of the cases in question, permit me first to premise a few observations on the history of the remedy, on the circumstances that led to a more accurate trial of its effects, and the manner in which it was employed in all the instances here related.

This plant, till of late, was equally unknown to physicians and botanists. Linnæus, it is true, mentions it, but without describing it, having never seen the plant. Dr. Jacquin, professor of botany at Vienna, means, however, as he informed me in a conversation I had with him lately (in May 1787) on this subject, soon to publish a figure and description of this plant\*.

So far as I can learn it was professor Winterl, at Pest, who first made known the anti-venereal powers of this remedy. Some years ago he wrote word to his friends in Vienna, that on the borders of Hungary a domestic

\* In a fasciculus of Professor Jacquins's *Icones Plantarum rariorum*, published since the date mentioned by Dr. Crichton, we find a figure of the *astragalus exscapus*, (which is copied by Dr. Girtanner in the work from which the present article is extracted) with a reference to the second volume of his collectanea, in which we may expect a botanical description of the plant. EDITOR.

remedy

remedy, which consisted of a decoction of the astragalus exscapus, was employed with a very good effect, in the cure of the venereal disease. Baron Stoerck, on hearing this, was desirous that Dr. Quarin, as director of the general hospital at Vienna, should make some experiments with this plant, in order to ascertain its effects with greater accuracy. A short account of the first three cases in which it was tried, is to be found in the book lately published by Dr. Quarin, under the title of *Animadversiones practicæ in diversos morbos*.

In the selection of patients, for these experiments, such only were admitted as declared, that before their coming to the hospital they had made use of no remedy for the venereal disease ; but in cases of this sort, in hospitals, as you well know, we cannot trust implicitly to the assertions of the patients.

They were all of them under the care of Drs. Quarin and Zeller ; and where no contra-indications were present, were allowed a full and nourishing diet. The apartment in which they were placed was large, and lofty, and the air was frequently renewed. In the winter it was kept warm by means of a stove ; and during the treatment the patients were not permitted to go out of the room.

In

In all these cases the astragalus was prescribed in the manner following :

℞. Radicis Astragali exscapi unc. semiss.

Coque in aquæ puræ unc. quindecim, donec libra supersit. Sumat aeger tepide mane, ac vespere.

Of the following histories of cases the first four are copied from the register belonging to the hospital; of the other six I was myself an eye-witness.

#### CASE I.

A woman, forty years old, was admitted into the hospital, July 26, 1785. She had two venereal nodes on the left parietal bone, and both were in a state of ulceration. She had also another considerable node on the left tibia, but which was not yet ulcerated. She took a dose of purgative salt, and afterwards began with the astragalus exscapus, prepared in the manner above described. She continued the use of this medicine morning and evening, till the first of September, when she was discharged from the hospital, cured. The two ulcerated nodes, during the treatment, were dressed simply with digestive ointment.—

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The node on the tibia gradually diminished, and had entirely disappeared before she quitted the hospital. The patient sweated profusely during the whole of the time she took the medicine.

### CASE II.

A woman, twenty years old, was admitted into the hospital September the 20th, 1785. She had two venereal nodes, one on the tibia, the other on the forehead, but neither of them was ulcerated. She left the hospital on the 5th of December following, thoroughly cured; and during this time had taken nothing but the decoction of astragalus. At first it purged her violently, but this effect soon went off; and afterwards, till the end of the treatment, she voided a greater quantity of urine than usual.

### CASE III.

A woman, twenty years old, was admitted into the hospital, October the 6th, 1785. She had a venereal tophus on one tibia, and venereal blotches on the face. On the 19th of November, of the same year, she was discharged, cured. This patient likewise took nothing

thing but the astragalus; and it seemed to increase the secretion of urine considerably.

#### CASE IV.

A girl, fifteen years old, was admitted into the hospital, May 14, 1786. She had a gonorrhœa, and two topi on the tibia of one foot. She took a saline purge, and afterwards the decoction of astragalus, without any other remedy. She persevered in its use till the 18th of July, on which day she was discharged, thoroughly cured.

#### CASE V.

A woman, twenty-nine years old, came into the hospital, November 29, 1786, with a gonorrhœa, two large condylomata on the labia pudendi, two buboes, and a tophus on the os frontis. She immediately began taking the decoction of astragalus, and during the first three weeks it sweated her profusely. After this she got the itch; but this did not prevent her continuing the use of the astragalus till January 29, 1787, on which day she was discharged, cured.

CASE



## CASE VI.

Magdalena Jaeger, eighteen years old, was admitted into the hospital, on the 25th of January, 1787. She had a gonorrhœa, condylomata on the labia pudendi, swelling of the inguinal glands, and the itch. She began the use of the decoction of astragalus the evening she was admitted, and continued it till the first of March following, when she left the hospital perfectly cured. She sweated profusely during the cure. She took no other medicine than the astragalus.

## CASE VII.

Sufanna Caton, thirty-seven years old, came into the hospital, February 8, 1787. She had a gonorrhœa, and a small node on the os frontis. After eight days use of the astragalus, the node was almost entirely gone, but the gonorrhœa remained as before. She sweated profusely, and the sweat had a strong and disagreeable smell. Some days after this she contracted the itch; but she still continued the use of the decoction of astragalus, and both the gonorrhœa and the itch seemed

to be better, as she was discharged May 2, at her own request.

### CASE VIII.

Joseph Koenig, aged twenty-seven years, came into the hospital, April 26, 1787. He had a large, painful tophus on the radius of the left arm, which was already in part ulcerated; another ulcerated tophus on the middle of the eighth rib of the left side, and a third on the left clavicle. He immediately began with the decoction of astragalus, and some of it was applied also to the ulcers. Before the 21st of June the tophi were thoroughly gone, and the ulcers healed, so that he was dismissed cured. In this case, during the treatment, the urinary secretion was greatly increased.

### CASE IX.

Anna Straffer, forty-four years old, came into the hospital, April 18, 1787. Her face and head were completely covered with a dry, brown, scaly eruption, which, from her own account, and from her mode of life, were supposed to be venereal. She had likewise a gonorrhœa. She continued the  
use

use of the astragalus for several weeks, without the least diminution of the eruption, altho' the gonorrhœa gradually went off. Her hair was now cut off, and her head covered with cloths dipped in a decoction of astragalus. A slight suppuration took place under the scales, which were soft, and gradually fell off; and she left the hospital, cured, June the 4th, 1787.

When one reads these cases, and observes the excellent effects the astragalus produced in them, it seems to be a very valuable remedy. In not one of them did it prove inefficacious. There are, however, at Vienna, some physicians who have not been equally successful with it in their experiments; and Professor Hunczowsky has assured me, that in his own private practice he has used a considerable quantity of this root, but has seen no good effects from it, and therefore has never persevered in its use longer than a fortnight.

In one case I myself have seen it administered without any effect. Still this proves, in my opinion, nothing against the antivenereal power of this remedy; for I am convinced, that in this case the principal symptoms, at the time the astragalus was had re-

course to, were not so much owing to the venereal virus, as to an improper use of mercury.

### CASE X.

A woman, forty years old, was admitted into the hospital, in the beginning of December, 1786. The tonsils and uvula were entirely destroyed; the bones of the nose were carious, and the fores discharged a thin, ill-conditioned, bloody matter. She had been twice salivated, and during the salivation the extent of the ulcers had diminished. By the use of the decoction of astragalus she seemed at first to mend, as the ulcers looked better and redder, and began to heal. But these good effects were not long apparent, and the disease after this seemed to be at a stand, or at least mended extremely slowly, till the end of August, 1787, at which time I quitted Vienna.

The astragalus, besides its anti-venereal properties, is said to possess others which render it very important to physicians, but which I have had no opportunity of ascertaining by my own experience, namely, its good effects in rheumatic, and (sometimes very improperly so called) gouty pains. Professor Hunczowsky, who, as

I have already observed, will allow no antivenereal property to the astragalus, assures me, however, that in complaints of the kind just now mentioned, he has often experienced the most striking good effects from the use of this remedy.

This is all I have seen or heard of, for or against the effects of the astragalus exscapus; and I have no doubt but you will agree with me in opinion, that this new remedy, altho' it may not be an actual specific for the lues venerea, deserves, however, to be considered as a valuable addition to the *Materia Medica*.

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## CATALOGUE OF BOOKS.

1. **C**ONSIDERATIONS on Bilious Diseases; and some particular Affections of the Liver and the Gall Bladder. By *John Andree, M. D.* 8vo. Hertford, 1788.

2. An Essay on the Causes of the Variety of Complexion and Figure in the Human Species. To which are added, Strictures on Lord Kaimes's Discourse on the original Diversity of Mankind. By the Rev. *Samuel Stanhope Smith, D. D.* Vice President

President and Professor of Moral Philosophy in the College of New Jersey, and Member of the American Philosophical Society (held at Philadelphia) for promoting useful Knowledge. A new Edition, with Additions, by way of Notes, by a Gentleman of the University of Edinburgh. 8vo. Edinburgh, 1788.

3. Bath Waters; a conjectural Idea of their Nature and Qualities, in three Letters to ——. To which are added, Putridity and Infection unjustly imputed to Fevers, a cruel public Grievance, attempted to be redressed; with some Account of the Nature and Management of plain Fevers. By *A. W.* M. D. Reg. Coll. Med. Edinb. Soc. 8vo. *Robinsons*, London, 1788.

4. Letters to Sir Joseph Banks, Baronet, President of the Royal Society, on the Subject of Cochineal Insects discovered at Madras. By *James Anderson*, M. D.: with a Copper-plate Engraving annexed of the different Insects mentioned in the letters, from the drawings of Baron Reichel. Also an Engraving of the *Opuntia major*, spinulis obtusis, mollibus & innocentibus; and the Plan of a Nopalry in the Bishopric of Guaxaca, in the Kingdom of Mexico, extracted from the second Volume of  
Sir

Sir Hans Sloane's History of Jamaica, for the Use of Gentlemen in India, who may be disposed to make plantations, and are not in possession of that Work. 8vo. Madras, 1788.

5. Critical Introduction to the Study of Fevers. Read at the College of Physicians for the Gullstonian Lectures; by *Francis Riollay*, M. D. Fellow of the College. 8vo. *Cadell*, London, 1788.

6. An Essay on the epidemic Disease of Lying-in Women of the Years 1787 and 1788. By *John Clarke*, Licentiate in Midwifery of the Royal College of Physicians, and Teacher of Midwifery in London. 4to. *Johnson*, London, 1788.

7. The Elements of Medicine, translated from the *Elementa Medicinæ Brunonis*, with large Notes, Illustrations, and Comments, by *John Brown*, M. D. Author of the original Work. 8vo. 2 Vols. *Johnson*, London, 1788.

8. Observations on the Medical Practice of *Dr. Brown*; or, An Inquiry into the Abuse of Stimulants in Fevers. 8vo. *Gardner*, London, 1788.

9. The Medical Reform; containing a Plan for the Establishment of a Medical Court of Judicature,

Judicature, to correct Abuses of the Profession of Physic in all its Branches; and a Medical College, to give full Instruction to Youth intended as Surgeons for the Navy or Army, without Expence to the Nation, or Oppression to Individuals: Being a Letter to the Right Honourable William Pitt, Chancellor of the Exchequer, &c. 8vo. *Deighton*, London, 1788.

10. Practical Dissertations on Nervous Complaints, and other Diseases incident to the Human Body: With an historical Investigation of their Causes and Cure; in which are interspersed some singular Cases. By Mr. *Neale*, late Surgeon of His Majesty's fifth Regiment of Infantry, &c. 8vo. *Faulder*, London, 1788.

11. First Lines of the Theory and Practice of Philosophical Chemistry. By *John Berkenhout*, M. D. 8vo. *Cadell*, London, 1788.

12. An Essay on the Nature and Origin of the Contagion of Fevers. By *John Alderson*, M. D. Member of the Royal Medical Society of Edinburgh. 8vo. *Murray*, London, 1788.

13. Thoughts on the Cancer of the Breast. By *George Bell*, Surgeon at Redditch. 8vo. *Johnson*, London, 1788.

14. Floræ



14. Floræ Cantabrigiensi Supplementum alterum \*. Auctore *Richardo Relhan*, A. M. Collegii Regalis Capellano, Regiæ Societatis Londinensis Socio. 8vo. Cantabrigiæ, 1788.

15. Flora Caroliniana, secundum Systema Vegetabilium perillustris Linnæi digesta; Characteres essentialisve & differentias veras exhibens; cum emendationibus numerosis descriptionum antea evulgatarum: adumbrationes stirpium plus mille continens: nec non, generibus novis non paucis, speciebus plurimis novisq. ornata. Auctore *Thomas Walter*, Agricola. 8vo. Londini, 1788.

16. Anatomicarum Annotationum liber secundus † de Organo Olfactus præcipuo deque nervis nasalibus interioribus e pari quinto nervorum Cerebri. Auctore *Antonio Scarpa*, in Ticinensi Archigymnasio Anatomes & Chirurgicalium operationum professore, R. Scientiarum Acad. Berolinensis, Cæsareo-Leopold. Nat. Curios. R. Medic. Parisiens. Societ. &c. Sodali. 4to. Ticini Regii, 1785. c. Tab. æneis.

17. Dissertatio Botanica de Moræa, quam

\* See Vol. VI. page 333, and Vol. VII. page 435.

† See Vol. I. page 212.

preside *Carol. Pet. Thunberg*, Equite auro. Reg. ord. de Vasa, Med. Doct. Prof. Med. & Botan. reg. & ord. &c. publice Examinandam sistit *Zacharias Colliander*, Stipend. Reg. Smolandus. 4to. Upsaliæ, 1787.

18. De Usu Inuentionum vario & præcipue in Gangræna metastatica exoptato, præside *Adolpho Murray*, pro gradu Doctoris rite impetrando differit *Job. Frederic. Sacclen*. 4to. Upsaliæ, 1787.

19. Dissertatio Inauguralis medica Observationes \* quasdam medicas continens. Auctore *Joanne Friderico Schwartz*e, Dipholza-Hanoverano. 4to. Gottingæ, 1787.

20. Pelvis Animantium Brutorum cum Humana comparatio. Specimen primum. Scripsit *Bernbardus Gottlob Schregerus*, M. B. 4to. Lipsiæ, 1787.

21. De usu Cinnamomi in partu valde dubio. Auctore *Joanne Carolo Gebler*, Pathol. Prof. p. o. &c. 4to. Lipsiæ, 1787.

22. *Caroli Ludovici Willdenow* Societ. Natur. Curios. Halens. Sodal. Floræ Berolinensis Prodromus secundum Systema Linneanum ab illust.

\* De inflammatione Hepatis. — De morbis venereis-larvatis.

Viro ac Eq. C. P. Thunbergio emendatum con-  
scriptus: cum Tabulis VII. æri incis. 8vo.  
Berolini, 1787.

23. Dispensatorium Fuldense tripartitum tam  
patriæ usibus, quam sæculi moderni (nostri)  
genio accomodatum a *Franc. Ant. Schlereth*,  
Phil. & Med. D. Consiliario intimo & archiatro,  
&c. 8vo. Fulda, 1787.

24. Tentamen Physico-medicum de Electri-  
citate. Auctore *Gulielmo Allanby*, Anglo-Bri-  
tanno. 8vo. Edin. 1788.

25. Dissertatio Medica Inauguralis, quædam  
de Dentitione Morbisque ex ea pendentibus  
complectens. Auctore *Samuel Allvey*, Anglo.  
8vo. Edin. 1788.

26. Dissertatio Inauguralis quædam de effec-  
tibus pathematum exhibens. Auctore *Carolo*  
*Joanne Berkley*, Anglo. 8vo. Edin. 1788.

27. Tentamen Physiologico-medicum de usu  
& effectu aeris puri in corpus humanum. Auc-  
tore *Henrico Burton*, Anglo-Britanno. 8vo.  
Edin. 1788.

28. Dissertatio Medica Inauguralis de Phthisi  
pulmonali scrophulosa. Auctore *Thoma Con-*  
*canen*, Hiberno. 8vo. Edin. 1788.

29. Tentamen Medicum Inaugurale de Vitiis  
quibus Humores corrumpi dicuntur, eorumque

3 G 2 . . . . . remediis.

remediis. Auctore *Samuele Crumpe*, Hiberno. 8vo. Edin. 1788.

30. Tentamen Physico-medicum Inaugurale quædam de Strabismo complectens. Auctore *Roberto Graves*, Anglo-Britanno. 8vo. Edin. 1788.

31. Tentamen Inaugurale de Phthisi pulmonali scrofulosa. Auctore *Gulielmo Saunders O'Halloran*, Hiberno. 8vo. Edin. 1788.

32. Tentamen Physiologicum de Nutrimine Fœtus Humani. Auctore *Gulielmo Handy*, de Urbe apud Rhodam Insulam Newport dicta. 8vo. Edin. 1788.

33. Dissertatio Inauguralis de Actione & Usu Emeticorum. Auctore *Jacobo Moultrie*, Carolinenfi Australi. 8vo. Edin. 1788.

34. Dissertatio Medica Inauguralis de Ictero. Auctore *Gulielmo Quillin*, ex Insula Mona. 8vo. Edin. 1788.

35. Dissertatio Medica Inauguralis de Fœtus Humani Nutrimiento. Auctore *Jacobo Robertson*, Scoto-Britanno. 8vo. Edin. 1788.

36. Tentamen Medicum Inaugurale de Testium Tumore Gonorrhœæ superveniente. Auctore *Jacobo Short*, Scoto-Britanno. 8vo. Edin. 1788.

37. Dis-

37. Dissertatio Medica Inauguralis de Inflammatione pneumonica. Auctore *Francisco Smith*, Anglo. 8vo. Edin. 1788.

38. Dissertatio Medica Inauguralis de Amenorrhœa. Auctore *Jacobo Watson*, Scoto. 8vo. Edin. 1788.

39. Dissertatio Medica Inauguralis de Tetano. Auctore *Josepho Nicholes Wilson*, Carolinensi Meridionali. 8vo. Edin. 1788.

40. *Precis du Siecle de Paracelse*, par M. *Joyand*, D. M. de la faculté de Besançon, Médecin de l'Hopital militaire de Brest. Tome 1. 8vo. Paris, 1788.

41. *Methode pour traiter toutes les Maladies*, très utile aux jeunes Médecins, aux Chirurgiens, et aux gens charitables qui exercent la Medecine dans les campagnes; dediée au Roi; par M. *Vachier*, Docteur Regent de la Faculté de Medecine, ancien Professeur des Ecoles de Medecine de Paris, Docteur en Medecine de l'Université de Montpellier. Tomes VII. 12mo. Paris, 1786-8.

42. *Demonstrations elementaires de Botanique*, contenant les Principes generaux de cette Science, l'Explication des termes, les Fondemens des Methodes, et les Elemens de la Physique des Vegetaux; la Description des Plantes les plus com-

communes, les plus curieuses, les plus utiles, rangées suivant la Methode de M. de *Tournefort*, et celle du Chevalier *Liné*; leurs Usages et leurs Propriétés dans les Arts, l'Economie rurale, dans la Medecine humaine et veterinaire, ainsi qu'une Instruction sur la formation d'un Herbar, sur la dessiccation, la maceration, l'infusion des plantes, &c. Troisième edition, corrigée, et considerablement augmentée. Tomes 3. 8vo. Lyon, 1787.

43. Traité des principales et des plus fréquentes Maladies externes et internes, à l'usage des jeunes Docteurs en Medecine, des Chirurgiens-medecins, et de Praticiens qui suppleent au défaut des Medecins gradués, ainsi qu'a celui des personnes éclairées, qui, par des motifs de bienfaisance, exercent la Medecine dans les Campagnes; dedié a L. L. E. E. les Souverains Seigneurs de l'Etat de Berne; par M. *Jean Freder. de Herrenschwand*, Docteur en Medecine, Associé etranger de la Société Royale de Medecine de Paris, et de la Société economique de Berne, ci-devant premier Medecin du Roi de Pologne, et Conseiller intime de S. M. et de la serenissime Cour de Saxe-Gotha, Medecin consultant de la Ville de Berne. 4to. Berne, 1788.

44. Observations generales sur les Hopitaux, suivies

suivies d'un projet d'Hopital ; par M. *Iberti*, Docteur en Medecine, avec des plans detaillés, redigés, et dessinés par M. *Delannoy*, Architecte, et ancien pensionnaire du Roi a Rome. 8vo. Paris, 1788.

45. Traité des Hernies, de M. *Aug. Gottlieb Richter*, Medecin et Conseiller de la Cour de S. M. Britannique, Professeur de Medecine et de Chirurgie en l'Université, President du College des Chirurgiens, Directeur de l'Hopital academique de Gottingue, Membre de l'Academie Royale des Sciences de cette Ville, de celle de Stockholm, et de la Société de Medecine de Copenhague ; traduit de l'Allemand sur la seconde Edition, par *Joséph Claude Rougemont*, Docteur en Medecine, Professeur d'Anatomie et de Chirurgie en l'Université Electorale de Bonn sur le Rhin, et ancien Demonstrateur d'Anatomie et de Chirurgie a l'Hopital de Brest. 4to. Bonn, 1788.

46. Memoires couronnés en l'année 1786, par l'Academie des Sciences, Belles Lettres et Arts de Lyon, sur l'Utilité des Lichens dans la Medecine et dans les Arts ; par M. M. *Hoffmann*, D. M. *Amoureux*, fils, D. M. et *Willemet*, professeur de Chimie et de Botanique. 8vo. Lyon, 1787.

47. Des Propriétés de la Plante appelée Rhus-

radicans ; de son Utilité, et des Succés qu'on en a obtenus pour la guérison des Dartres, des Affections dartreuses, et de la Paralyfie des parties inférieures, &c ;. Par M. *du Fresnoy*, Docteur en Médecine de l'Université de Montpellier, Conseiller du Roi, Médecin des Camps et Armées de S. M. ancien Médecin de ses Armées en Allemagne, de la Société Royale des Sciences de Montpellier. 8vo. Paris, 1788.

An accidental circumstance, it seems, led to a trial of the rhus radicans in cutaneous complaints. A person who had rubbed the leaves of this plant between his fingers, complained of much heat and itching of his hands, which swelled and became covered with small vesicles filled with a yellowish fluid. This erysipelatous affection soon extended over every part of his body ; but at the end of about ten days, when the inflammation and swelling had entirely subsided, he found himself cured of an herpetic blotch on one of his wrists, which, for the space of six years, had resisted a variety of mercurial and other remedies. After this our author tried it with success in nine cases of obstinate cutaneous eruption. In one of these he employed an infusion, and in the others a water distilled from the leaves of the plant.—Five instances



stances are mentioned of the good effects of these remedies in paralytic affections.

48. Recherches sur l'endurcissement du tissu cellulaire des enfans nouveaux-nés ; extraites des volumes de la Société Royale de medecine ; par M. *Andry*. 4to. Paris, 1788.

49. Analyse chimique de l'eau sulfureuse d'Enghien, pour servir a l'histoire des eaux sulfureuses en general, par M. M. de *Fourcroy*, Medecin de la Faculté de Paris, de l'Academie Royale des Sciences, &c. et de *la Porte*, Medecin de la Faculté de Paris, &c. 8vo. Paris, 1788.

50. Abhandlung ueber die venerische Krankheit ; von *Christoph Girtanner*, der Arzneywissenschaft und Wundarzneykunst Doctor, der koenigl. Societaet der Wissenschaften zu Goettingen Correspondenten. 8vo. Goettingen, 1788.

This volume contains a valuable treatise on the venereal disease, from which we have extracted an account of the *astragalus exscapus* \*. It contains much curious matter, relative to the history of the disease, and in particular, some new and forcible arguments, deduced chiefly from the Spanish writers, in proof of its having been

\* See page 405.

brought from America to Europe. In another volume the author proposes to give a catalogue of all the writings on this disease, that have been published from the time of its first appearance to the present, with a short account of what is particularly worthy of notice in each. For this purpose, it seems, he has looked over two thousand different publications, of which, upwards of three hundred, he observes, were unknown to Astruc, tho' of a date prior to that of his work on the venereal disease, which appeared in the year 1740.

51. *Verhaltungsfregeln fuer Schwangere und Kindbettingen, i. e. Directions for the management of pregnant and lying-in-women.* By *Raphael Steideler*, public teacher of Surgery and Midwifery in the general hospital (at Vienna). 8vo. Vienna, 1787.

52. *Chemischer Lehrbegriff nach Spielmanns grundsætzen aufgearbeitet, und mit den neuesten erfahrungen bereichert, i. e. A chemical text book, drawn up according to Spielmann's principles, and enriched with the latest discoveries.* By *G. F. C. Fuchs*, M. D. Professor of Physic at Jena. 8vo. Leipzig, 1787.

53. *Grundlinien oder Revision der ganzen praktischen Arzneikunde; ein handbuch und leit-*

faden fuer praktische Aerzte und Wundärzte, *i. e.* Principles, or Review of the whole practice of physic; intended as a compendium and guide for practical Physicians and Surgeons. 8vo. Leipzig, 1787.

54. Dr. *Tb. Skeete* Erfahrungen und Beobachtungen ueber die rohrichte und rothe Peruvianische Rinde, nebst einer anleitung, die Fieber, die Braune und andere Krankheiten zu heilen. Aus dem Englischen. nebst einigen beylagen des Deutschen Herausgebers. 8vo. Leipzig, 1787.

55. Versuch ueber die einimpfung der Pocken, *i. e.* An essay on the inoculation of the small-pox. By *H. J. Raffer*, M. D. 8vo. Graetz, 1787.

56. Physikalische und Philosophische abhandlungen der Gesellschaft der Wissenschaften zu Manchester. Erster Theil, aus dem Englischen. 8vo. Leipzig, 1788.

57. Dissertatio Psychologica inauguralis de Sympathia. Auctore *Engelbert Schlickum*. 8vo. Duisburgh, 1788.

58. *J. Pb. Vogler*, Pharmaca selecta observationibus clinicis comprobata denuo edita et aucta. 8vo. Wetflar, 1788.

59. Memoires pour servir a l'Histoire Physique et Naturelle de la Suisse, redigés par *M. Reynier*,

Membre de plusieurs Sociétés, et par M. *Struve*, Professeur honoraire de Chymie á l'Academie de Laufanne, et Membre de plusieurs Sociétés. Tome 1<sup>er</sup>. 8vo. Laufanne, 1788.

60. Quinta Differtatio Botanica de Sterculia, Kleinhovia, Ayenia, Buttneria, Bombace, Adansonia, Crinodendro, Aytonia, Malachodendro, Stewartia et Napæa. Accedit præcedentium Differtationum Mantiffa 36 Tabulis ære incisfis ornata, Auctore *Antonio Josepho Cavanilles*, Hispano-Valentino. 4to. Parisiis, 1788.

61. Sexta Differtatio Botanica de Camellia, Gordonia, Morifonia, Goffypio, Waltheria, Melochia, Mahernia, Hermannia, Urena, Halesia, Styrace, Galaxia, Ferraria, et Sifyrinchio. Accedit Mantiffa tertia; 41 Tabulis ære incisfis ornata, Auctore *Antonio Josepho Cavanilles*, Hispano-Valentino. 4to. Parisiis, 1788.

62. Differtatio Medica Inauguralis de Caryophyllis aromaticis quam præfide *C. P. Thunberg*, Eq. aur. Reg. ord. de Vasa, Med. Doct. Prof. Med. et Botan. Reg. et ord. &c. pro gradu publicé ventilandam offert *Herman. Rud. Haft*, Medic. Provinc. Ostroboth. 4to. Upsaliæ, 1788.

63. Restio, quem Differtatione Botanica, præfide *C. P. Thunberg*, Eq. aur. Reg. ord. de Vasa, &c. publico examini subjicit *Petrus Lundmark*, Nericius. 4to. Upsaliæ, 1788.

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73. Enchiridion Historiæ naturali inserviens, quo Termini & Delineationes ad Avium, Piscium, Insectorum & Plantarum adumbrationes intelligendas & concinnandas, secundum Methodum Systematis Linnæani continentur, Editore *Jo. Reinholdo Forster*, LL. Med. & Philos. D. & LL. AA. M. 8vo. Halæ, 1788.

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81. *Petri Orlandi, Romani, Philosophiæ ac Medicinæ Doctoris, de Variolarum refellenda Inoculatione Dissertatio.* 8vo. Romæ, 1788.

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E R R A T A.

Page 33 in the Note for '*c Vermiculorum*' read '*e Vermiculorum*'.

—41 — '*incedentum*' — '*incedentem*'.

—206 for '*evaporation*' read '*evaporatio*'.

—260 and 265, for '*sate*' read '*sot*'.







