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M E M O I R S
O F T H E
M E D I C A L S O C I E T Y



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L O N D O N.

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V O L. II.

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F O R C H A R L E S D I L L Y , I N T H E P O U L T R Y .

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第 一 期

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P R E F A C E.

THE favourable reception of our former Volume, and the recent communication of many valuable essays, have induced the Society to publish another, which they hope will not be less acceptable to the community:

The plan of the Society, equally liberal and salutary in its object, has engaged the attention of a scientific world; a very considerable number of literary characters, both at home and abroad, having evinced their approbation, by requesting to become members of it; and by offering to it the result of their experience. And here we cannot but ac-

knowledge with pleasure, the favours of our corresponding Members, who may rest assured that no medical communication escapes the notice of the Society ; and that, as the third volume is now preparing for the press, the Essays adjudged for Publication, which could not be comprized in the preceding, will be inserted in the subsequent volumes, with as much dispatch as the importance of such publications may admit.

Many corresponding Members having politely requested to know, what subscriptions are due to the Society upon their admission, we think it proper here to remark, that the distinction conferred by the Society, entails no expence on our correspondents, being the result of the high sense the Society entertain of their medical abilities. The Society, however, having founded a Medical Library, donations to promote this object of their institution, will be gratefully accepted.

Besides

Besides the Fothergillian Medal, which is given to the Author of the best Essay, in answer to the Prize Question proposed by the Society, two silver medals are annually adjudged ; one to the Author of the best Essay, read before the Society within the year, written by a Fellow* ; the second, for the best Essay, by any other person.

Two silver Medals were presented last year :

One to JOSHUA WALKER, M. D. Physician to the General Infirmary at Leeds, and C. M. S. for his Memoir on the Atrophia Lactantium, an endemial disease prevalent in and about Leeds, in Yorkshire :

* Any Member who resides within seven miles of London.

The

The other to Mr. JOHN SHERWEN, of Enfield, Surgeon, and C. M. S. for his history of the Scirrho-contracted Rectum, and Memoirs on the effects of Emetic Tartar, and of Arsenic, by absorption.

The first of these Essays is the fourth Article; and the three last form the second, twenty-fourth, and twenty-fifth Articles of the present Volume.

The silver Medals of the present year were adjudged, one to THOMAS PERCIVAL, M. D. of Manchester: his papers, containing “Experiments on the solvent powers of Camphor, and other Miscellaneous Communications;” and “Medical Cautions and Remarks, particularly relative to Pulmonary disorders;” are the 15th and 26th Articles of this Volume.

The other to Mr. HENRY FEARON, Surgeon. His Paper entitled, “ Observations “ on Cancers,” is the 38th Article of this Volume.

It may not be improper here to mention, that the Directors of the Humane Society of London, having proposed a gold and a silver Medal for the best original Essays on suspended Animation, came to the following Resolution, on the 9th of July 1787.

“ That the Medical Society of London be
“ respectfully requested to be the adjudica-
“ tors of the first Prize Medals, for the best
“ original Essays on suspended Animation,
“ which are to be adjudged the second week
“ in March 1788; and that the Register
“ transmit this unanimous Resolution to the
“ Medical Society, and report their answer
“ to

“ to the next meeting of the Humane Society.”

Agreeably to this request the decision was made, and the Medals publickly delivered to the successful Candidates, in the Society's house, on the 26th day of March, 1788.

In recording these transactions of the Medical Society, we trust every Member will feel himself more warmly interested in the support and promotion of the great object of its institution——THE EXTENSION OF MEDICAL SCIENCE, in which the honour of our profession, and the happiness of the community are inseparably connected.

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M E M O I R S
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O F
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A R T I C L E I.

Of the HYDROPHOBIA, from a Greek manuscript, in the possession of JAMES SIMS, M.D. PRESIDENT of the MEDICAL SOCIETY of LONDON, with a translation by the same.

Read January 21, 1788.

HAVING been so fortunate as to procure a large number of ancient Greek manuscripts on medicine, many of which are hitherto unpublished, I once entertained a design of laying before the Society an accurate account of the whole; their number and variety has however deterred me from the undertaking at present; therefore I have selected a few pages of one of them, principally because it contains several hints which may not be unworthy of adopting. I have long thought our mode of

treating the *Hydrophobia* wrong; beyond a doubt it is completely unsuccessful.

The Ormskirk medicine, cinnabar and musk, have all proved themselves totally inefficacious; opium in the largest quantities has also failed; nor can more be said for bleeding, or the use of mercury.

We pretend to follow the directions of Celsus in relation to the cold bath, yet entirely neglect the mode in which he did it, and also what he directs immediately to succeed it; that is, plunging the person into a bath of oil, to prevent, as he says, their being killed by the spasms. It is to be remarked, that in this country it is the spasms that ever kill the patient. The expence of a bath of oil has, I suppose, made his directions only to be followed in part; Cælius likewise advises frictions with oil. I have long resolved, that should I meet with a case of *Hydrophobia*, I would have the patient rubbed all over repeatedly with oil, and likewise make him drink it very copiously. There are many other things worth notice in the manuscript, which is not less valuable, because written with Hippocratic conciseness.

Περὶ Ὑδροφόβου.

Ὑδροφοβίας αἰτία.

Οἱ μὲν ἀρχαῖοι τῷ πάθει ἐκ ἐμνήσθησαν· ἔοικε δὲ γίνεσθαι διὰ δίτην αἰτίαν· ἢ γὰρ ὑπὸ λυσσῶντος κυνὸς ἐνδακόντος καὶ εἰσώσαντος τὸς ἐν τῷ σώματι χυμῶς· ἢ χυμῶν τοιούτων ἐνληραφέντων τῷ σώματι, οἷον δύνασθαι ἐπαγαγεῖν τὸ πάθος· ὑπὸ τέτων δὲ ἀναξηραιομένων τῷ τε ὅλῳ σώματι σὺν τῷ πνεύματι, καὶ τῷ σωματίῳ, εἰκὸς ἐστὶ καὶ τὸν σπασμὸν ἔσεσθαι. Καὶ πρὸς τὸν τῷ ὕδατος ψόφον ἀπεχθῶς ἔχειν, διὰ τὸ κατάρτηρον τῶν ὀρεκτικῶν ὀργάνων. ταῦτα γὰρ διὰ τὴν πολλὴν ξηρότητα δυσκινεῖται, ἣν δὲ κινεῖται ἀλγεῖ· δι' αὐτὸ γὰρ εἰς κατάρτησιν ὑγρῶν μάλιστ' ἀλλοτριεῖνται, ὡς περὶ οἱ κοπῶδεις διὰ τὴν ξηρότητα τὴν ἀπὸ τῶν κόπων γινομένην, δυσκίνητοί εἰσι. παρ' ἑκάστω γὰρ ἢ οἰκεία τῷ αἵματι ὑγρότης, εὐκίνησις ἐστὶ αἰτία.

Ὑδροφόβου σημεῖα.

Οἱ δὲ ὑδροφοβικοὶ δεδοίκασι πάντων ὑγρῶν. ὡς καὶ μνησθέντες ἐξίστανται μετὰ κραυγῆς, τρόμου, φόβου, ἰδρώτων ψυχρῶν, ὀδόντων παλάγῃ. Προκόπτοντες δὲ ἐπὶ τὸ χειρὸν, πάντα ταῦτα πάσχει, καὶ χωρὶς ὑγρῶ φαντασίας· ἀλλοτριεῖνται τοῖς ψιθυρίζεσι, καὶ

ψόφες υδάτων δεδοίκασι. Βαρύνονται διὰ κραυγὰς αἰφνιδίως. Ὁ μέντοι τρόμος αὐτοῖς ἐκ ἔσι διηνεκῆς, ἀλλὰ κατὰ τὰς φαντασίας ἐπιλιθέμενος. Περιψύχονται γὰρ μετ' ἄερος. Καὶ σφυγμὸν πυκνῆναι· συνδιακαίουμαι μετ' ἀσθενείας. Καὶ εἴ τις προσφέρει πότον, ἐκτρέπονται, καὶ κεκράγασι. Καὶ τὸ πνεῦμα κλαυθμῶδες ἔχουσιν· ὅμοιον παισὶν ἀκολύμβοις μέλλουσιν εἰς βύθος ἀπλεσθαι· λυγμὸς ἐπὶ τὸ χεῖρον προῖσσι παρέπειλαι· ἢ φωνὴ ἄτονος, καὶ ὑλακὴ· παραπλησίων ἀδίκημα· ἔνιοι δὲ τῇ σφοδρότητι τῆς ταραχῆς ἐν τῷ βιάζεσθαι ἐπισπασθέντες ἀπέθανον.

Ἑδροφόβη Θεραπεία.

Τὰς δὲ ὑδροφοβικὰς κατακλιθεὶς ἐν τοποῖς εὐαέροις καὶ εὐκράτοις· τὴν τῆ πόσῃ λύσιν αὐτοῖς ἐκ παντὸς ἐπιμηχανήθειον, καὶ μάλις κατὰ τὰς παροξυσμῶς· Ἔσω δὲ μελικράτον· εἰ δὲ ἀδυνατοῖεν ἂν τῆτο, ἐψηθεὶον μέλι, ἕως ἂν κηρῶδες τὴν σύστασιν γένηται· ἔπειτα ὡσπερ ἄγνη κεναὶ ἐμποικῆνες, καὶ ταῦτα ὑδατος ἐμπιμπλῶνες καὶ ἐπιπωμαλίζουνες διδότησαν καταπίνειν· ἕτως γὰρ ἅμα τὴν τε δίψαν καὶ τὸ κατὰξῆρον τῶν σωμάτων παρηγοροῖντο ὡς ἀπὸ μελικράτους, καὶ ἐκ ἂν παροξυνθεῖεν πρὸς τὴν τῆ ὑγρῆ δόσιν. Καταπλασθεὶον δὲ αὐτοῖς τον σόμαχον καὶ θύρακα τοῖς ἐμψύχεσι πάντη, τοῖς φοίνιξι μετὰ μήλων κυδωνίων, ἢ πέπονι,

ἢ πέπονι, ἢ κολοκυνθίας ξύσματι, ἢ ἀμπέλω ἢ ἰζῶ, ἢ ἀνδράχνη, ἢ κοριάνω, ἢ σρύχνω, ἢ ἀειζῶ. Ἐκ-
 άσω ἄριον ἢ πάσης ἀλφίτων συνεμβαινομένω· συνε-
 χέσερον δὲ ὑπαλλατέσθω. Ἐσω δὲ χρόνος ἢ μὲν
 αὐτάρκης, ἢ τῷ νοσῶντος εὐφορίαν. Ἐν δὲ τοῖς σπασ-
 μοῖς παρέσω καὶ ἢ διὰ τῶν χειρῶν πειθήνιος κράτη-
 σις, καὶ συγκρίσματα δὲ το δάφνινον, ἢ ἴρινον, ἢ ἀ-
 μαρακίνον, ἢ γλεύκινον σὺν κασορίω· καὶ τὰ ἄλλα
 τὰ τέτοις ὅμοια. Κατὰ δὲ τὰς ἀνέσεις τροφαὶ
 ἔσωσαν ῥοφηματώδεις καὶ ὑδραυλικαί· εἴη δ' ἂν ἐν ταύ-
 ταις ὁ διὰ πλισάνης χυλὸς σὺν μέλιτι· αὐτάρκη δὲ
 ἔσω τα διδομενα. Προπολιζέσθω δὲ μελικράτω· ἀ-
 ρίση καὶ ἢ θηριακῆ, καὶ αἱ διὰ δύο πεπέρεων ἀνλίδοι
 διδόμεναι κατὰ τὰς ἀνέσεις· κατὰ δὲ τὰς παρακμὰς
 χρήσασθ' αὐταῖς, καὶ ἐλαίω· ὁ τὰ μὲν πῶς φέρων,
 ὅτε δὲ ἐν βαλάνω μοίρα· προωθείσθω δὲ ὡς ἔσωλάτω·
 εἰ γὰρ διὰ τινὰ αἰτίαν τὴν ἄνω κάθαρσιν ἐκκλίνομεν,
 ἐπὶ τὴν κάλω χωρηθόν. Εἴη δ' ἂν ταύτης ἄριστος
 μὲν τῷ μέλιτος ἐνεῆρος ἢ δ' ἔν κολοκυνθίδος· ἢ ἢ δια-
 ταύτης ἰατρεία ἢ ἐπὶ τὸν θυμόν· ἀμύνοι δ' ἂν ἐν
 τέτοις καὶ τὸ ἐναρεθὸν ἀπὸ τῆς ἡμέρας θεᾶς πε-
 ρίαπτον. Ἐν δὲ ταῖς ἀναλήψεσι προσφερέσθωσαν
 καὶ τὰ εὔπεπλα, καὶ πωλῶν, εἴη δ' ἂν πᾶσα ἢ
 ὑδραυλικὴ δίαίλα αὐταῖς ἀρίση.

De Hydrophobia.

Hydrophobiæ Causæ.

Veteres quidem morbum istum silentio præterierunt; originem vero sumpsisse videtur ex duplici causa, vel a rabidi canis morfu, quo spuma corpori immittitur, vel ab humoribus ejusmodi in corpore ingeneratis unde exoriri possit morbus. His de causis toto corpore cum spiritu et gutture exarescentibus, spasmus necesse est subsequatur. Perosi sunt igitur aquæ strepitum, propter ariditatem organorum appetentium, quæ nimia siccitate difficilius moventur, sin autem moveantur, dolore afficiuntur. Idcirco a potu liquidorum maxime abhorrent: simili ratione homines laboriosi ab ariditate quæ a laboribus exoritur difficulter moventur; quia in omni casu propria sanguinis humiditas facilis motus causa est.

Hydrophobiæ Signa.

Qui Hydrophobia afficiuntur omne liquidum pertimescunt, ita ut si quis aquæ mentionem faciat, repentino impetu subsiliunt, cum clamore, trepidatione, metu, algido sudore,

dore, stridore dentium. Ingravescente autem morbo, omnia hæc sine ulla aquæ cogitatione patiuntur; tum si quis ore fistulæ sonum imitetur hunc averfantur; et strepitum aquæ pertimescunt; omnesque repentini strepitus graves fiunt. Verum enimvero tremor ille non perpetuus est, at secundum vim animi imaginatricem supervenit. Sub dio refrigerantur. Pulsus autem habent crebrum, et a morbo penitus comburuntur. Et si quis potum affert, avertunt oculos clamitantes. Ipse autem spiritus flebilis est, puerorum instar nandi imperitorum, cum ad profundum jam jam lapsuri sunt. Insequitur autem rabies cum in pejus prolabuntur, vox debilis et latratio; illos injuria afficiunt qui prope adstant. Sunt autem qui morbi sævientis violentia spasmis cruciati perierunt,

Hydrophobiæ Curatio.

Hydrophobos reclinare facito in locis ubi puram et serenam habeant auram. Et potum administrare omni modo studeto, præsertim in paroxyfmis. Iste vero potus ex aqua melle mista fiat. Quod si hoc fieri non potest, mel coquatur, donec spissitate ceri simile sit, dein
(ministri)

(ministri) quasi vacua doliola fingentes, et hæc aqua implentes obturantesque, dent ægris ad bibendum; hoc enim modo, sitimque et ariditatem corporum mitagabunt perinde ac mulsi opera. Neque hoc modo irritantur tanquam administratione aquæ. Cataplasmate autem stomachum et thoracem obducito ex algidis, vel palmæ fructu cum malis cydoniis, vel pepone, vel ramentis coloquintidæ, vel vitibus, vel visco, vel portulaca, vel coriandro, vel solano, vel sedo: singulis horum cum pane, vel farinæ glutine commixtis. Sæpius autem mutetur cataplasma, idoneo tempore, vel pro dolentis conditione. At in spasmodis ministri teneant manibus ægrotantem, et ungant lauro vel iride, vel amaraco, vel musto cum castoreo, et similibus. Requiescente autem morbo vescantur (Hydrophobi) forbitionibus et cibis aquosis; quibus adjungatur forbitio e ptisana colata, cum melle. Quicquid autem administratur idoneum sit. Bibant autem mulsum. Theriaca quoque optima est. Et dentur antidoti ex ducibus piperibus per remissiones. Cum vero languent ægroti, hisce remediis utimini, una cum oleo; vel in potu, vel in balani forma: balanus autem intromittatur quantum

quantum potest intimo, nam si propter quamcunque causam vomitum ciere nolumus, ad catharsim eundum est. Ubi optimum est enema melleum vel e coloquintida. Ex his curatio petenda est vel menti adhibenda medicina. Auxilium tunc ægrotis affert virtute præditus ex nostra dea monile. Cum vero convalescere incipiat æger, afferantur cibi et potus, digestu faciles, et stomachicæ, et lenitivæ. Semperque escæ quæ forbitionis speciem habent optimæ sunt.

A R T I C L E II.

Observations on the Scirrho-contracted Rectum:

By JOHN SHERWEN, of ENFIELD, Surgeon, and C. M. S. Communicated by J. C. LETTSOM, M. D. &c.

Read July 16, 1787.

THE disease of which I am about to treat is not peculiar to any sex; but is, I believe, pretty generally confined to patients in an advanced period of life. It comes

comes on in the most gradual and imperceptible manner. Slow in its progress, but terrible in its consequences, it yields not to medical assistance; but must under the best management become ultimately fatal. It admits however of palliation, and if early discovered, will also admit of the last moments of the patient being rescued from unavailing, mistaken, and distressing attempts to cure. It is therefore an object worthy of the most serious attention of every humane practitioner. For though we cannot cure, it is our duty to smooth the bed of death, and under the most unhappy circumstances of disease to prolong life as far as lies in our power.

There is no disease to which the human frame is incident that is more liable to be misunderstood; *diarrhœa*, *dysentery*, *tenesmus*, choleric, painful distension of the abdomen, inflammation in the bowels, and illiac passion, which are each of them formidable and often fatal diseases in themselves, may be successive symptoms only of the *scirrhus rectum*. Under some one of these appearances it is highly presumable

presumeable, that many patients have died without the real cause having ever been assigned or suspected. And even when it is suspected and becomes an object of manual investigation, it may easily be mistaken for an enlargement of the prostate gland, or a *scirrhus uterus*.

The patient gradually experiences a difficulty in evacuating *fæces* of a thin consistence. There is a principle of accommodation in the human system which enables him to go on for a great length of time without applying for aid. As the passage becomes obstructed, the *fæces* acquire a thinner consistence, and the first complaint which he makes is of a looseness. He tries small doses of *rhubarb*, which perhaps exciting a considerable discharge, procure relief; but the cause remaining, the symptoms again return. He now tries *columbo root*, *simarouba*, small doses of *ipecacuana*, and a variety of medicines recommended for *diarrhæa* or *dysentery*: These have little effect, and he continues in other respects apparently in good health. His appetite is but little impaired, reiterated scanty evacuations, amounting in the whole to a sufficient

ficient quantity to keep the stomach easy, preserve a sort of balance in the intestinal canal; but by degrees the cavity of the gut becomes less permeable, opiates and testaceous powders have perhaps been had recourse to, and the frequent needing to stool abates. The patient and his friends flatter themselves that he is getting well. But he now gradually falls off in his appetite for food. The absence of stools is for some time attributed to this cause, till the lower part of the abdomen by degrees acquires a remarkable promi- nency, attended with uncommon rumbling of wind in the belly like the gurgling of water in a bottle. These two last circum- stances perhaps afford *pathognomonic* symp- toms of this disease; more especially when accompanied with frequent but scanty dis- charges of thin, dark coloured, slimy *fæces*; often not more than a tea-spoonful, seldom exceeding at one discharge a larger quantity than a table-spoonful. But to return, the patient makes several ineffectual attempts to go to stool, and if he is a man of natural good sense and penetration, begins to suspect that there is some mechanical obstruction to
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the completion of his wishes. His physician, if he has not sooner taken up this idea, now enters heartily into it, and will naturally suspect an accumulation of hardened *fæces*, which often produce for a long time the same symptoms as a real *scirrhus* of the part. In fact, the obstruction in both cases is mechanical, and hardened *fæces* in the rectum, too bulky to be evacuated, almost always produce a looseness; scanty evacuations of thin *fæces*, formed from the retention of the general contents of the bowels, every now and then escaping past the hardened ball, keep up at least the appearance of a looseness. Under this idea he will have recourse to calomel or castor oil, and will perhaps succeed. If the obstruction is from hardened *fæces*, the finger generally is necessary; but when it proceeds from a *scirrhus* gut, the cathartic may possibly produce a plentiful discharge of thin *fæces*; the symptoms will for a time subside, but by degrees they will again return; there will again be a constant needing, with slimy scanty evacuations, and the disorder will now be pronounced a *tenesmus*. If an attempt is made to throw up
warm

warm water or milk to wash the part and lessen irritation, the operator will experience the same difficulty in getting the liquid up which the unhappy patient hath found in expelling the contents of the bowels. If a female assistant performs this office she will tell an inattentive practitioner, that it goes up very well; but the whole will be wasted and received in the cloths, and the patient doubly cheated, first, of expected relief, and secondly, disappointed in his physician's acquiring that information so essential to his future comfort. If a surgeon performs this office, he will find upon forcing the liquid into the gut, that a few ounces will apparently pass well, but soon a forcing downwards on the part of the patient takes place, and the whole will return into the bladder in his hand. He may repeat his efforts ten times, and the regurgitation will as often follow, and perhaps not a table spoonful of the enema will be lost. At last he may possibly succeed, the enema may be forced beyond the obstructed part; but it will there be retained an unusual length of time, and will come away at last by little and little. In the
course

course of this task he will doubtless introduce his finger, and will flatter himself at first that he feels a lump of hardened *fæces*; but upon the patient's bearing down forcibly, he will distinctly feel the coats of the intestine betwixt his finger and the lump, which if it happens to be situated on the side of the gut in contiguity with the bladder, he may conceive to be an enlarged prostate, but a free discharge of urine will discountenance such idea. If the hardness and tumefaction is attached to the *cervix uteri*, or the back part of the *vagina*, it may easily be mistaken for a *scirrhus uteris*.

By degrees a total suppression of stools takes place, the tumour in the abdomen encreases, the uncommon rumbling of wind becomes more audible, so as to engage the attention of the friends and visitants of the patient. The distension gradually encreases, till the stomach is oppressed and a vomiting comes on, The vomiting is not very frequent at first, but by degrees every thing swallowed is vomited up; severe pains are felt from distension in various parts of the abdomen,

abdomen, and a true illiac passion of the chronic kind comes on, and continues as long as the patient lives, unless he is accidentally relieved by a free discharge of thin *faeces*, which will sometimes unsuspectedly give a respite to his sufferings. In consequence of which, the appetite for food will again return, the patient will again appear to be getting well; but the anxious solicitude of his friends at this period will urge him to get down considerable quantities of generous nourishment, till at last a repetition of the same scene takes place, and the unhappy man is alternately tantalized and worn out either by a stoppage or a purging.

If assistance is not called in till the patient arrives at this deplorable state of the disease, the want of stools, the great pain, vomiting, and tenseness of the abdomen, may be pronounced an inflammation of the bowels, or an illiac passion of the acute kind. If powerful means are employed under such idea, it is easy to conceive that the last moments of the patient must be rendered doubly distressing.

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The constant needling to stool which attends this disorder, may be distinguished from a common *tenesmus* by attending to the following circumstances. A common *tenesmus* is generally sudden in its attack, or it follows severe purgings or dysenteries, where the preceding circumstances have been well defined. It is often the consequence of *drastring cathartics*, and is always attended with considerable pain, and most frequently with a *mucus* discharge tinged with blood, instead of *fæces*; whereas that which accompanies the *scirrhous rectum* is attended with little or no pain, but with powerful ineffectual strainings; during which, there will often be a discharge of wind, and the *mucus* squeezed out is slimy, but always more or less black and excrementitious, very seldom tinged with blood. In the common *tenesmus*, the *impetus* seems entirely spent on the *sphincter ani*, and there is more or less of a protusion of the gut: but in the straining from a *scirrhous rectum*, the patient is not sensible of that extreme distress at the fundament which is experienced in the other, and as soon as a small portion of excrementitious *mucus* is voided, he is able to rise immediately

from the stool; but in a common *tenesmus* he is under a necessity of straining long, even after the expulsion of all that he knows from his feelings will at that effort be evacuated, and after he is able to rise from the stool there still continues a burning pungent sensation, urging to a continued expulsion. Whereas in the *tenesmus* of which I am treating, after the patient has strained hard, whenever a small quantity of thin *scæces* arrives at the anus, it is squirted out with slight efforts, and little or no uneasiness follows; nor does the countenance shew that extreme distress attendant on the *spasmodic stricture* of a common *tenesmus*.

When the preceding symptoms have not been known, it will be less easy to distinguish this malady from the true *volvulus*, or acute illiac passion. It is presumed, however, that they may be thus discriminated: this obstruction being situated within a few inches of the extremity of the intestinal canal, does not produce such enormous pain, such exquisite anxiety, as when it is seated higher up, or in the small intestines; nor do the powers of life so soon give way. The patient swallows
food,

food, he retains it some time, and is apparently nourished by it, for his pulse keeps up in a surprising manner, and the physician may pronounce, day after day, that his patient is far from being arrived near the termination of his sufferings, for which however he ardently longs. But in the true illiac passion from inflammation, *intus-susception*, or incarceration in the small intestines, the powers of life almost immediately sink, the countenance is descriptive of misery, the pains are intolerable, the patient tosses and writhes his body to and fro, and whatever is swallowed, is instantaneously returned; in a short time a cessation of pain takes place, and the skilful observer can almost to a certainty predict the hour of dissolution, at the time that the friends and the patient are even beginning to flatter themselves with hopes of his recovery.

As soon as we are able to ascertain the true nature of this disorder, it will be necessary to make the patient sensible of it, and thoroughly understand it, that his ideas may go along with ours, and co-operate in the future plan for his comfort. Nor will this be very easily

accomplished; it must appear paradoxical to the patient, who has long known himself to be afflicted with a looseness, to be told that it is necessary, during the remainder of his life, to confine himself to that regimen, which common experience points out as most likely to procure an open belly. And even admitting that we have gained over the understanding of the patient, we shall be liable still to interruption, from the intrusion of well-meaning friends and neighbours, with whom a perpetual war must be waged.

Food which contains the greatest quantity of nourishment in the smallest compass, should be used, cautiously avoiding every article of this kind which is of a constipating quality. It should be taken frequently, but sparingly. All solid food, and particularly bread, pudding, and farinaceous substances, which contribute to bulky motions, should be totally laid aside. Milk, which may be considered as chyle already made, would be excellent nourishment, but there are some reasons to suspect that it is often productive of hardened *stercus*: its use therefore must be determined by the former habits of the patient when in health. Jellies
and

and rich broths will afford considerable nourishment, and will deposite little that is not capable of passing off by the kidneys. It is impossible, *a priori*, to say how long the human system may be comfortably supported under such diet, with very scanty evacuations by the anus. It is certain that men have lived, in good health and spirits, a fortnight without voiding any stool whatever, notwithstanding they have eaten and drank during the whole time with good appetite. If this plan should be adopted whilst the rectum is in part pervious, the very scanty evacuations will bear a much larger proportion to the ingesta, than when food of various kinds is indiscriminately and plentifully swallowed.

I have already mentioned a certain accommodating disposition in the animal œconomy, by which it becomes reconciled to new situations. It is worth while to pay more attention to this circumstance here, because upon this accommodating disposition I build my hope of rendering the last moments of the patient supportable. As the gut contracts, the contents of the bowels are impeded in their progress,

gress, they undergo a degree of fermentation, the *faeces* become thinner, a large quantity of air is generated, the bowels are thereby gradually distended, and the patient goes on with little inconvenience for a considerable length of time. At last there is a total suppression of stools, and soon after, the stomach begins to regurgitate. That progressive motion of the bowels, called *peristaltic*, ceases to operate downwards; by degrees it takes a contrary turn, and acts as regularly upwards. And even now under these unhappy circumstances, if the patient is left to nature, he will feed, he will be nourished; the discharges of urine and perspiration will go on, and the stomach will reject what it is not capable of digesting: How long life may be thus sustained when medicine is refused is unknown. It must be acknowledged, that life under such circumstances cannot be desirable; still, however, it is the duty of the physician to prolong that life to the utmost of his power, and to use his best endeavours to lighten the affliction of the unhappy patient, and thereby to enable him the better to submit to the dispensations of providence.

In this last stage of the disease, every cathartic becomes a distressing emetic, and should doubtless be no longer used. Indeed, admitting that the *peristaltic* motion of the bowels was not inverted, yet when the stoppage is complete, there will be the same objection to cathartics, which forcibly strike us in regard to the use of diuretics in a suppression of urine. Diuretics in such cases counteract the accommodating disposition of the animal œconomy; they stimulate the kidneys to a larger secretion of urine, and the bladder of course every moment becomes more and more distended: whereas, if diuretics and diluents were totally refused, absorption would considerably relieve the patient, and, perhaps, enable him to support life till more effectual relief might be obtained from mechanical means. Catheters and bougies for a suppression of urine are in the hands of every practitioner, and these may doubtless be contrived (particularly the elastic ones) to give relief in a suppression of thin stools. Strongly impressed with the importance of this idea, I beg leave to lay the following case before the Medical Society, together with the diseased part, which I have sent for
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their inspection; as, I trust, they will clearly shew, not only the practicability, but the absolute necessity, for some attempt of this kind.

Case of a scirrhus Rectum.

ELIZABETH SHAKESHAFT, aged 52, a woman of a thin and fallow countenance, applied to me about the latter end of the year 1786, for a pain in her bowels, which, upon asking her some questions, and from observing some little unusual prominence of the abdomen, I apprehended arose from a want of stools, notwithstanding she had some degree of looseness upon her. She was considerably relieved by a dose of *castor oil*. In two or three weeks she was obliged to apply to me again, and was again relieved in the same manner. The same symptoms constantly recurring about the same distance of time, induced me to pay more particular attention to her complaints. I now prescribed *calomel*, which acted very briskly, and with the help of an *anodyne* draught, gave her considerable relief. The discharge was dark-coloured, but free from lumps. As
usual

usual, however, about the same distance of time, she was again obliged to apply for assistance, and begg'd to have another dose of the little spitfire powder, as she called the calomel. I now began to pay a strict attention to the discharge of *fæces* when she was not under the operation of cathartics, and found them such as I have already described in my general remarks on this disease, which will render a minute description of the case less necessary here. I was now convinced that the complaint proceeded from some mechanical obstruction; though this could not be accurately ascertained by examination with the finger, the point of which, upon her bearing down strongly, just reached a substance unusually solid: upon introducing a finger into the *vagina*, the *os tinçæ* was distinctly felt apparently in its natural state, but closely attached to it; and a very little nearer, the same solid substance was felt which opposed itself to the finger in the *rectum*. I satisfied myself that it was not hardened *fæces*, but suspected it to be an irregular enlargement of the *uterus*.

Being

Being now convinced that the case would go on from bad to worse, I earnestly solicited her to procure advice in London; but to my great concern, having implicit confidence in myself, she long objected: 'till at last a humane Lady in her neighbourhood asking my opinion of the complaint, I pronounced it an incurable one: assuring her, that either from a *scirrhus* womb or some solid substance obstructing the gut, there was not a sufficient passage for natural figured stools, and that I knew of no means even for temporary relief besides purging medicines and thin diet. Upon this alarming prognostic it was determined to remove her to London, from whence at first we received very flattering accounts, *viz.* that she had had stools, that her appetite was returned, and that she was recovering fast. Ten days, however, were hardly elapsed, before a very different account was brought down: we were now informed, that the disorder had taken a new turn, that it had got up into her stomach, and that she was worse than she had ever been before. Anxious to put herself again under my care, she returned to Enfield in the beginning of April.

April. I was not surpris'd to find her with frequent hiccups, violent pains, an enlarged abdomen, and a total suppression of stools. Her stomach immediately rejected castor oil, and her favorite medicine calomel ceased to take effect. I must here candidly confess, that had this been my first introduction to the case, I should not have suspected the true cause of the symptoms. Some ineffectual attempts having been made to give relief by means of tobacco clysters and tallow candles, she was resign'd to her fate: and it will be sufficient to add, that she lingered twenty-four days without passing a single tea-spoonful of *fæces*. Towards the conclusion of the scene, I was happy in having an opportunity of carrying Dr. Lettsom to be a witness of it. The Doctor, ever ready to give his assistance to the poor, judiciously, but in vain, examined the navel and the groins, lest any small unobserved *hernia* might have given rise to the symptoms. On the 10th of May she expired.

The body was opened the next day in the presence of Mr. Connop, an ingenious surgeon,

geon, and the appearances upon dissection were as follow :

The stomach and the whole intestinal canal were turgid with *flatus*. There were evident marks of inflammation on the external coats of the *colon*, and in several parts of the small intestines. There was a considerable quantity of thin, yeasty, frothy, dark-coloured *faeces* in the *colon*. We found the seat of the disease where the *colon* ends and the *rectum* begins; the gut was thickened and considerably enlarged, but its cavity at the same time so much obliterated, that when Mr. Connop poured water into the superior part of the gut through a funnel, it was with some difficulty that it filtered through the thickened intestine. When the parts were dissected out, it measured exactly five inches and a half from the *anus* to the beginning of the tumor, which extended five inches and a half further up, and appeared to be about ten ounces in weight. Upon slitting the intestine to the thickened and contracted part, it had the appearance each way of an *os tinæ*, but was not in the nature of a common

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mon *intus-susceptio*. The *uterus* was remarkably small, and attached to the thickened gut which extended a very little below the *os tincae*. I tried in vain to pass a small bougie through the contracted part of the intestine, but it yielded to and was dilatable by the finger. In the living subject this might probably have been effected by passing a common probang up the *rectum*: or we might have succeeded by the use of bougies of different sizes, made of horn, smoothly polished, which I would certainly try in future in any similar case. This substance, by long boiling in water, becomes soft and pliable, and will retain its softness some time after it is removed from the boiling water. It will adapt itself to the natural curvature of the *pelvis*, and should be carried on to the obstructed part slowly, gently, and steadily, with the utmost tenderness and circumspection, but at the same time with sufficient force and resolution. There are cases of suppression of urine in which bougies of horn, softened by means of boiling water, would probably adapt themselves to the part, and give much relief. The great danger

ger will be in the point of the bougie acting upon a fold of the intestine, close to the entrance into the obstruction. If it once passes through the obstructed part, there will be a plentiful discharge of thin *fæces*, and the disorder will be again brought back to a *diarrhæa*, in which state every possible means consistent with supporting the strength of the patient should be used to continue it. There are many instances of daily purgings, being supported many years by old persons; and, perhaps, there is reason to suppose, that such purgings often arise from a similar contraction in the *rectum*.

I will here candidly confess, that I have myself attempted to cure such a purging from a *scirrhus rectum*, which attempt produced a dangerous stoppage. The purging was again brought back by castor oil, and the patient relieved. It was again stopped, and the stoppage followed by tumefaction of the abdomen, rumbling of wind in the bowels as already described, and regurgitation from the stomach. I have seen this patient, after twenty hard straining motions,
void

void only as many drops of slime, tinged with *fæces*. The purging was a fourth time brought back by means of castor oil, but the strength of the patient so much exhausted that he did not long survive it. To be more particular in this would be “*incedere super ignes, suppositos cinere doloso* :” suffice it to say, that after the first stoppage, my prognostics were confirmed in every future stage of the complaint; and that knowledge acquired, which I have here endeavoured faithfully to communicate. And happy shall I be, if this imperfect sketch of a disease, which I have reason to think is not generally known, shall, in any future instance, be the means of a timely discovery of its true nature and cause; on a knowledge of which, depend the right management and future comfort of the patient’s life.

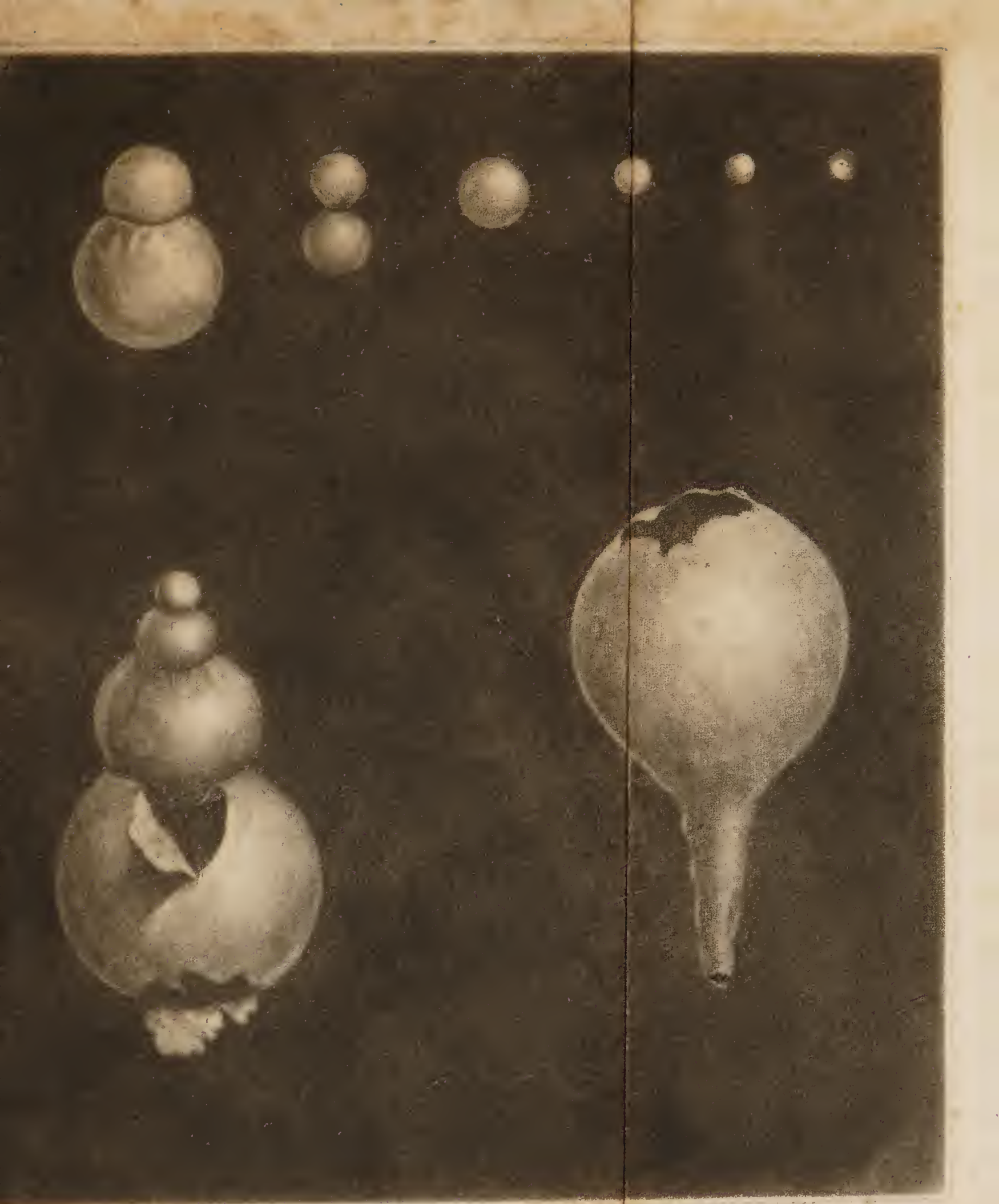
A R T I C L E III.

History of two Cases of Hydatides Renales: By
J. C. LETTSOM, M. D. &c.

Read January 14, 1788.

C A S E I.

J. TAYLOR, Esq. a gentleman of 32 years of age, was thrown from his horse, in the month of February, 1780, by which he received an injury on the lumber region, and from the copious discharge of bloody urine which succeeded, it was imagined that some vessels were ruptured near the left kidney. After the first fortnight, he felt no pain, and performed all the functions of nature, as in a sound state, though somewhat reduced in strength by confinement and low diet. In the month of June following, he consulted me on account of a troublesome cough, attended with expectoration of blood, which he ascribed to the previous accident, as being
the



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the only probable recollection; the cough was removed, after some months attention, and he again enjoyed a tolerable share of health. In the autumn of the same year he found himself so well recovered, that he was enabled to bear violent exercise on horseback, insomuch that the recollection of his accident was almost effaced, nor had he any painful symptom of his late disorder till about three years afterwards.

In the month of December 1783, he was suddenly seized with a shivering, and felt a violent return of the lumbar pain, extending to the scite of the left kidney: in a few days he perceived a turgescence or enlargement in the *hypochondrium*, which continued gradually encreasing until the latter end of the month of February 1784, a space of nine weeks: after the first month, the tumor was so little painful, that he was enabled to take a journey of 130 miles, to London, to consult me upon his case.

Upon examining the tumor, from obvious fluctuation on the touch, it evidently con-
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tained a fluid: it extended from the vertebræ of the back along the left *hypochondrium* to the umbilical region, and occupied the whole space from the ribs to the *os innominatum*: in magnitude it felt as large as an infant's head.

As the swelling augmented, the pain increased, and the patient suffered considerably from the action of walking or motion in general; but hitherto no rigors were observed, and the pain was so far mitigated by a mild anodyne, as to render it no ways intolerable; till at length some difficulty of making water came on, and for many hours a total obstruction: in this situation, Surgeons of the first eminence were consulted, to determine how far it would be adviseable to make an incision in the side and perforate the cyst, in order to take off the pressure on the bladder, and obviate the fatal event which the retention of urine threatened: this was on the 20th of February; the result was, that, from the uncertainty of the situation of the tumor with respect to the intestines which were suspected to take a
curve

curve over its anterior surface, as well as from the risk of exposing such parts to the external air, the operation was protracted; and the usual opiate of the patient was ordered to be increased in the evening, which was the chief remedy, besides the use of cicuta, and anodyne clysters.

He passed a painful night, suffering frequent and violent rigors; but early in the morning experienced the most happy relief, by a discharge of a large quantity of thick pus with the urine, which was followed the next day, by that of pus and numerous hydatides.

In a few days the tumor subsided, and the purulent discharge ceased; after this he continued recruiting in strength for nearly a fortnight, when his side enlarged again, after exercise in a coach, probably by a large hydatide stopping up the ureter: rigors and strangury succeeded as before, and the tumor became as large as in the first instance, till the latter end of March, when he experienced a second discharge in every respect

like the former, excepting the hydatides being much larger.

His health and strength again returned, until his side filled a third time, after exercise on horseback; and continued swelling until the 25th of April, when he was again relieved by a third discharge, and these hydatides were considerably larger than those of the preceding attack.

The passages now became so open, that he frequently discharged the hydatides after walking or riding, without enlargement or pain of the side; or, if he felt uneasy, or perceived a tendency to tumescence, by pressing his hand upon the side, he could squeeze them into the bladder, where they would remain some time before they were discharged; but the hydatides became at length, so considerable in size, that it was with great difficulty, they passed the urethra. The last that he voided was on the 12th day of July, which was so very large, that it stopped up the urethra, and remained in it for a considerable time, until the weight of the accumulated urine forced it away.

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The earliest hydatides burst in their exit; and they gradually encreased in magnitude in every successive discharge; the first that he passed not being bigger than the skin of a green pea, and the last about the size of a pullet's egg.

Since this last discharge, his health gradually recovered, he enjoyed without the least inconvenience, the chace, and every other species of exercise as well as ever he did.

During the whole progress and termination of the disease, very little medicine was administered, except cicuta, gum arabic, clysters and anodynes. He once took an emetic, when the tumor became uneasy, previous to the second discharge, and which seemed to hasten the eruption of the hydatides. Bark was tried, but with manifest inconvenience between the eruptions, and was left off. After the last discharge, it seemed beneficial, as well as asses milk.

Particular attention was paid to diet, which consisted of smooth emollient farinaceous drinks, or very thin animal broths.

From the history of the disease, there remains very little doubt, but that it originated in the kidney, where the suppuration was extended to an amazing degree, till at length the matter breaking through the cyst, in which it was contained, passed into the ureter, and was thereby conveyed into the bladder.

C A S E II.

A CASE not very dissimilar was introduced to me in November 1785, by the following letter from an eminent Surgeon at Charing in Kent, where the patient also resides :

“ The bearer of this, Mr. SMITH, by
“ trade a butcher, a sober temperate man,
“ has been for some years past affected with
“ a complaint of a singular nature, which
“ seems to arise from the right kidney: it
“ comes on with a pain in the region of
“ that kidney, which appears to descend in
“ the course of the ureter of the same side,
“ and

“ and ceases, after discharging by the urethra
“ some membranous kind of bags, to all
“ appearance hydatides, which have been
“ of different sizes: some of the smaller
“ have been whole, but the larger, I sup-
“ pose from pressure, have been broken and
“ empty: there have been considerable in-
“ tervals between the paroxysms, during
“ which he has enjoyed perfect health;
“ but within this last year, the paroxysms
“ have been more frequent, attended with
“ a greater discharge of hydatides.”

The patient informed me that he first perceived the disease about ten years ago, when the hydatides were discharged of the size of a pea, with a sensation of weight or pressure, rather than of pain; preceded sometimes with slight rigors. He had such returns about every four or five months at the earlier periods, but they have since increased in frequency, and the hydatides in size.

These discharges have occurred at least five times during the last twelve months,
and

and are accompanied with encreasing pain ; and the hydatides are now about an inch and a half in diameter : previous to these late attacks, he feels a fulness in the region of the right kidney, and discharges at one period, near a quarter of a pint of hydatides, besides purulent matter. About three years ago, he broke his leg, which, however, soon recovered, but he thinks the disease has encreased in frequency and violence since this accident.

I prescribed the following remedies :

℞ *Extracti Cicutæ*

*Pilul. Saponac : a ʒi. f. Pilulæ xxiv. capiat duas
omni nocte.*

℞ *Electar. Lenitiv. ʒj.*

Æthiop. Mineral. ʒʒ.

*Syr. Simpl. q. s. fiat Electarium, de quo capt.
magn. Nucis Mosch. mane, prout venter postu-
laverit.*

℞ *Uvæ. Urſi. ʒijʒ.*

*Coque ex Aq. font. ʒix. ad ʒvi. sub. finem cocti-
onis addendo Rad. Glycyrrh, ʒʒ. et cola.*

℞ *Liquor. Colati, ʒiʒ.*

*Tinct. Stomach, ʒj. f. Haust. bis per diem sumen-
dus.*

Not

Not having received any account of the patient's health, or of the effects of the remedies; after a space of twelve months, I wrote to the apothecary for further information, who favoured me with the following relation :

“ I received yours of December last, and
“ should have answered it sooner; but for
“ the sake of giving you a more satisfactory
“ account of the person you enquire after:
“ it was in November 1785, that he applied
“ to you, and he continued to take the me-
“ dicines as prescribed by you, near four
“ months; but sometime before he discon-
“ tinued the use of them, he had ceased to
“ bring away any hydatides, and except some
“ little pain in the back, and this after much
“ riding or fatigue, he continued perfectly
“ well, until about the latter end of Decem-
“ ber last, when after some considerable
“ pain in the back, he voided again several
“ more hydatides, of a longer size than for-
“ merly, to the basis of which, or that part
“ which appeared to have been attached to
“ the kidney, some fabulous matter adhered:
“ he

“ he has discharged several more at different
 “ times since, but the last have not had any
 “ fabulous matter joined to them; and he
 “ has now, I hope, voided the whole of this
 “ last collection, having not discharged any
 “ very lately; and except some small pain
 “ in the back, he is perfectly well: he is now
 “ taking the same medicines as before, only
 “ instead of the decoction of the *uvæ ursi*,
 “ he takes this vegetable in powder.

I am, &c.

W. HAWKER.”

I am not desirous of enlarging the histories of medicines by the relation of solitary cases, without the prospect of improving the science: and, although these may not tend to ascertain the virtues of any remedy, or point out a certain fixed mode of treatment; they, at least, exhibit the successful termination of these diseases in a manner hitherto unnoticed, and perhaps unknown: and should a similar instance occur to any practitioner, it might afford some satisfaction to find its symptoms recorded.

A R T I-

A R T I C L E IV.

Some Remarks on the prevalence of the Atrophia Lactantium, communicated to Dr. Lettsom, by JOSHUA WALKER, M. D. C. M. S. Physician to the General Infirmary at Leeds.

Read July 16, 1787.

THE *Atrophia Lactantium*, *Tabes Nutricum*, or that emaciation arising from the suckling of children, is a disease with which physicians are well acquainted; but its more frequent occurrence of late, in this town and neighbourhood, renders it now, more than formerly, an object of serious consideration, especially to the inferior classes of females, to whom it is particularly incident.

If by pointing out the cause of this growing malady, and exciting the attention of practitioners towards it, and thereby giving
some

some check to its future progress, the lives of some of these useful and laborious individuals can be preserved to their families and the community, the writer of these remarks would feel that satisfaction which is always the result of having contributed, in the smallest degree, to the cause of humanity, and the relief of our fellow creatures.

It has been painfully noticed, in several parts of this extensive and commercial country, and particularly in this place, that since the more plentiful introduction of *Tea* into the families of the industrious poor, by the late reduction of its price, this disease has made an unusually rapid progress. The difficulty with which animal food is procured, by the lower ranks of society, in quantity sufficient for daily nutriment, has led many of them to substitute, in the place of more wholesome provisions, a cheap infusion of this foreign vegetable, whose grateful flavour (and perhaps narcotic quality, which it possesses, in a small degree, in common with most other *evergreens*), is found to create an appetite for itself, in preference to all other kinds

kinds of aliment that the scanty income of poverty allows these deluded objects to procure; though I am sorry to have occasion to add, that the lowering effects of tea-drinking, lead too many of these to seek for relief from spirits, and other pernicious cordials, at the expence of health, and the sure consequences of penury and want.

As this change, in the article of diet, has been very generally made, especially by the females, and the younger branches of the families of the manufacturing poor, their constitutions have been rendered much less able to bear evacuations of any sort, and particularly that of Lactation. I may, with great truth, aver, that more than two hundred patients of this denomination have, within the last two years, come under my notice: upon their application for relief, and the consequent enquiry which I have been led to make respecting the nature of their diet, their almost invariable reply has been, that they have chiefly depended upon tea for their support, at the same time that they were permitting an apparently healthy
child

child to draw the whole of its nourishment from them.

That it is *debility*, and an *impoverished state* of the whole system, arising from a deficiency in the due supply of proper and sufficiently nutritious aliment, at a time when the constitution particularly requires it, in consequence of the continual waste which the mother sustains from the suckling of her infant, which lay the foundation of this disease, and that the lungs are but secondarily, or symptomatically affected, is clearly evinced from an attention to the symptoms.

The patient first complains of languor, and general weakness; loss of appetite; fatigue after exercise, though it be of the gentlest kind; wearisome pains in the back and limbs; soon after which, symptoms of general atrophy come on; the face, in particular, grows thin, and is marked by a certain delicacy of complexion; paleness about the nose; but with a small degree of settled redness in the cheeks. In a short time, if the patient still continues to give suck, she is seized with
transitory

transitory stitches in the sides, under the *sternum*, or in some other part of the *thorax*; accompanied with a short dry cough, and slight dyspnæa upon any muscular exertion; the pulse also becomes frequent, but seldom so hard as in the inflammatory state of the genuine *phthisis pulmonalis*; morning sweats next make their appearance; abscesses and ulcers are often formed in the lungs; *pus* mixed with *mucus* is expectorated; the general weakness increases; the emaciated patient is unable to support an erect posture; and at last dies literally exhausted.

With respect to the method of treating this disease, my design is rather to point out the *cause* of its present unusual prevalence, that suitable cautions may be timely given to the unsuspecting sufferers, than to offer to the public any new modes of practice. The late Dr. Fothergill, who was a correct observer, both of nature, and the effects of remedies on the human body, has made some excellent remarks on the use of the bark, &c.* very applicable to the disease in

* Medical Observations, Vol. V. page 348.

question;

question; to which I am induced to add, for the sake of the younger practitioner, a few observations which have been drawn from my own experience.

It has always appeared to be indispensably necessary for the mother to wean her child, immediately upon the appearance of symptoms of debility, as the first and most essential step towards a cure.

Secondly, To change the patient's diet from tea, and the less nutritive vegetables, to milk, and its various preparations; gruels, broths, and a small quantity of mild animal food, along with a proper proportion of bread and esculent roots, particularly potatoes, turnips, and carrots. Shell-fish, jellies, chocolate, sago, salep, and tapioca, would all be highly proper, did not poverty prevent the far greater number of these patients from procuring them in sufficient quantity; but as frequent instances of kindness are daily offered, by the hand of opulence, to these objects of compassion and distress, it is more than probable that the
recital

recital of such articles of diet as are likely to afford relief, may have its use in directing some friendly neighbour to a proper choice of them.

The animal food which is allowed, should always be taken for an early dinner, and by no means late in the afternoon, or evening; and is so far from increasing the febrile symptoms, in the first stage of this disease, when a state of debility chiefly prevails, that, for the most part, it proves a powerful restorative, and the patients are soon sensible of the happy change, and gain additional strength; especially when this course has been assisted by gentle tonics, such as the following mixture of myrrh and *sal martis*, which, with some alteration, is the same that Dr. Griffith has recommended in his Essay on the Hæctic Fever.

℞ *Gummi myrrhæ pul. drachmam unam,*
Tinct. Cortic. peruvian, drachmas sex, tere simul
et adde sensim,
Aquæ fontanæ. Uncias sex,
Salis Nitri purif. Scrupulos duos,

E

Salis.

*Salis Martis pulv. grana duodecim,
Syrupi Balsamici semunciam, f. Mistura, cujus
capiat Agra Cochl. duo, mane jejuna, hora un-
decima motutina, et quarta pomeridiana.*

In some Cases, when there appears to be an exacerbation of fever in the afternoon, I have thought it more useful to confine the administration of this remedy to the forenoon, and to direct a few spoonfuls of the saline julep, or *decoctum nitrosum*, to be taken frequently, in the afternoon, evening, and during the night, if necessary.

If, in the course of a week, after the mixture has been regularly administered, the patient should remain free from pain, or sense of restriction in the thorax, difficulty in respiration, or any other symptoms indicating an inflammatory affection of the lungs, we may hope for a favourable termination of the disease, and be encouraged steadily to persevere: nor, in this case, should bleeding be admitted of, even in the smallest quantity, as the patient's strength, as well as general habit, have been sufficiently reduced by the preceding

preceding

preceding circumstances of lactation, and improper diet. Decoctions of the Peruvian bark, moderately acidulated with the vitriolic acid, will now be proper, and greatly conducive to the patient's recovery, especially if these can be assisted by a change of situation from the town, to the pure air of the country.

If, however, which is sometimes the case when the disorder has been neglected, and the patient has continued to discharge the office of a mother longer than her ability permitted, the symptoms should indicate a more advanced state of the disease, and fixed pains in some part of the thorax should come on, with oppressed breathing, and a frequent hard pulse, then a small bleeding, to the amount of two or three ounces only, may be occasionally of use; and instead of prescribing the myrrh, bark, or vitriolic acid, it will be adviseable to take off the inflammatory determination to the lungs, by strictly enjoining a milk and vegetable diet; keeping the bowels gently open by the mildest and least heating laxatives; moderating the symp-

tomatic fever by cooling falines, and palliating the cough by mucilaginous mixtures, rather than by oily linctuses.

R *Mucilag. Gum. Arabic. spiss.*

Syrup Simpl. — *a. Uncias tres,*

— *Limonum* — *Uncians unam*

Salis Nitri purif. — *Drachmam unam, f.*

*Mistura, cujus sumatur Cochl. j. quater vel
saepius in Die, irritante tussi.*

The inflammatory spasm, or constriction of the thorax, should, at the same time, be relieved by the application of blisters to the part pained, renewing them as they heal, rather than keeping them open; a practice which is not by far so efficacious, yet harrasses the patient much more, than repeating the blister as soon as the part has healed.

When all, or most, of the inflammatory symptoms are removed by the means just now mentioned, these patients then bear the use of the myrrh, watery infusions of the bark, and the elixir of vitriol, with considerable advantage; as they are found, by experience, to be much safer, and more generally beneficial

beneficial in these symptomatic cases, than in the genuine phthisis arising from the inflammation and suppuration of tubercles in the lungs themselves.

Should the disease be still farther advanced, and accompanied with morning sweats, purulent spitting, prostration of strength, and the utmost degree of debility, the latter of which always accompanies this disease in a more remarkable degree, than the true phthisis, both reason and practical observation point out the expediency of supporting the patient's strength, by the restorative means before directed; and allowing, as in the first stage, a small portion of animal food, at least once a day, without which our kindest endeavours would be frustrated, and instead of affording relief, would serve to accelerate the fatal period.

ARTICLE V.

*Experiments on the solvent powers of Camphor;
and other Miscellaneous Communications, in
a Letter from DOCTOR PERCIVAL, to
DOCTOR LETTSOM,*

Manchester, Aug. 1, 1787.

Read September 24, 1787.

DEAR SIR,

IF you deem the following facts and observations of sufficient importance to be offered to the Medical Society, I trust they will be received as a small tribute of my respect for an institution, into the fellowship of which I have had the honor of being elected. I do not apologize for the brief and miscellaneous form in which they are delivered, not only because I have no leisure, at this time, for systematic composition, but because I am persuaded this mode of communication is favourable to the advancement

advancement of science. It has been adopted by the members of several foreign academies, and is sanctioned by the authority of Lord Bacon, and the example of Mr. Boyle. No object or event stands single and detached in the great frame of nature. Each has its relations and dependencies, similitudes, contrarieties and uses, which a well-informed mind can at once recognize, arrange and pursue; and which increasing knowledge may multiply to an extent beyond our present powers of comprehension.

I. I do not recollect that the SOLVENT POWER OF CAMPHOR, on resinous substances, has been particularly noticed by medical writers. It seems to be evinced by the following experiments, which I communicate to you, because the result of them may be applied to various pharmaceutical uses.

Ten grains of myrrh were rubbed, in a mortar, with two grains of camphor, to which about an ounce of pure water was added, by degrees. The mixture was smooth, and the
sediment

sediment deposited, after standing two days, was not considerable, and was readily diffusible again by agitation.

Two grains of camphor were rubbed into a powder, in the mortar; to which an ounce of pure water was gradually added, as in the former experiment. No triture or agitation, (as is well known) could effect either a solution, or an uniform diffusion.

Two grains of camphor, and the same quantity of myrrh, treated in the like manner, formed a composition sufficiently smooth and equable.

As myrrh is a gummy resinous substance, it is in some degree miscible with water: but in a comparative trial, I found the union much more imperfect than when camphor was combined with it.

These experiments were suggested by the following incident, which lately occurred in my practice. Having directed a composition of camphor and balsam of Tolu, in pills, for
a patient

a patient going a voyage on account of his health, the apothecary acquainted me that he could not form it into a proper mass; and that it liquified like treacle. The experiment was afterwards made in my presence. At first the two substances would not incorporate, when rubbed together; and I suspected that some S. V. R. had been used before, to promote their union. But the triture being continued, a sudden combination and liquefaction took place.

Camphor probably acts as an essential oil, in dissolving resin. When a composition is required of these substances, in a pilular form, it is rendered practicable by the addition of a small portion of the coagulated yolk of an egg.

II. I have lately prescribed, with considerable success, to various patients, a mineral water, which I believe is little known in England. It springs from the Heartfill Mountain, about three miles north of Moffatt; and a very full account of it is given by Doctor Horseburgh, in the first volume of the Physical
and

and Literary Essays. A lady, who had been making a tour in Scotland, brought me a bottle of it, some time ago; but I did not examine it till a case of chronic hæmorrhagy, attended by Dr. Eason and myself, suggested the trial of such a styptic remedy. The water appears to be a strong chalybeate, and to contain a portion of alum. It is not unpleasant to the taste; and, in the dose of about a quarter of a pint, is grateful to the stomach. It relieves uneasy irritations, and slight pains in that organ; promotes digestion; and abates flatulence, if taken before meals; and though acidulous in taste, corrects acidity, and does not even coagulate milk; when mixed with it. I have had experience of its efficacy in profuse discharges of the *catamenia*, in the *fluor albus*, in *dyspepsia*, in *struma*, and other disorders originating from a laxity of the fibres. In such maladies, chalybeates have been long employed; and Boerhaave, you know, speaks of their virtues with enthusiastic admiration, asserting that no medicine, either animal or vegetable; no diet, no regimen can produce the effects, which are accomplished by iron.

And

And as I think the Heartfill Spa water is one of the pleafantest forms, under which this active remedy can be administered, with considerable efficacy; as the most fastidious patients may be prevailed upon to take it, when drugs are loathed and neglected; as it is much cheaper, as well as stronger, than that of Pymont or Spa; and as it bears carriage without injury, it promises to be a valuable acquisition. Its aluminous impregnation, also, adds to the medicinal powers which it possesses as a tonic, a sedative, and a styptic. There is often a morbid sensibility and irritability in the stomach and *primæ viæ*, which render the office of digestion uneasy and painful; and create an habitual disposition to flatulence, and to slight attacks of cholic. Alum, as I have noticed in a former work, is a valuable remedy under these circumstances. And, combined with iron, by the chemistry of nature, its energy, as a styptic, will doubtless be increased.

III. I have lately met with an instance of *Tussis Convulsiva*, succeeding the croup, in a boy about three years of age. He was perfectly

fectly free from cough, when seized with the *Cynanche Trachealis*; and hooped violently when that disorder was removed. Are these two maladies of the same genus? In both there subsists a spasm of the muscles of the *glottis*, occasioning symptoms of suffocation; and both are most effectually relieved by emetics, and antispasmodics, such as the flowers of zinc, James's Powder, and musk.

Such a membrane as is formed in the *trachæa arteria* is sometimes generated in the intestines. Lady A—— G——, aged two years, had an Aphthous fever, during which a few ascarides appeared in her stools. On this account, when sufficiently recovered, she took a dose of rhubarb and calomel, which occasioned the discharge of six or eight annular substances, resembling in figure, portions of guts, but evidently unorganized. I found them to be nothing more than gluten, secreted probably by some parts of the alimentary canal, affected by the fever, with aphthous inflammation.

IV. Various writers, particularly the poets, have sanctioned the notion, that in the JAUN-
DICE,

DICE, objects are painted on the retina of the same colour, with that which tinges the external coat of the eye. This I regarded, till lately, as a vulgar error; and endeavoured to shew, in a treatise on the alliance of natural history with poetry, that it is neither confirmed by experience, nor consonant to reason; and that in the worst cases of the jaundice now known, the symptom has no existence. But two instances have lately occurred, in the circle of my practice, which clearly evince that the opinion has sometimes, a foundation in fact; and that conclusions, drawn even from a very general induction, may be fallacious: for my observations were made with attention, during a course of near twenty years. The patients, now alluded to, were men of middle age, who had lived intemperately, whose malady had proved obstinate, but whose eyes were not tinged with bile in an extreme degree. Yet they were uniform in their testimony, that all white objects assumed a yellow cast; and that this hue was deepest on their rising from bed in a morning.

V. A few years ago a gentleman consulted me about the state of his eyes. He had for a long time felt an uneasy sensation, whenever he viewed any square object; and this malady was then so much increased, that, in playing at whist, he was under the necessity of holding the cards under his eyes, to preclude the sight of their angular points. The pupil of each eye was remarkably contracted, and the *tunica albuginea* slightly inflamed; yet a moderate light was borne without uneasiness. Vision was sufficiently distinct, at all ordinary distances; but I suspected that the field of it was extremely limited; and that the patient, in viewing a quadrangular object, when near, might possibly measure it by a muscular exertion of the organ, which gave pain. But of this he did not appear to have any perception; nor could he recollect the date, nor account for the origin of his disorder. He was not a fanciful, or hypochondriachal man, nor did the complaint seem to depend on the state of his stomach. Some odd association of ideas, perhaps at first gave rise to it. The Gentleman lives at a distance from Manchester; and
having

having been only once consulted by him, I am unacquainted with the termination of this singular malady.

I am, with sincere esteem and respect,

Dear Sir,

Yours, &c.

THO. PERCIVAL.

A R T I C L E VI.

Remarks on the Ascaris Lumbricoides, by
J. CHURCH, M. A. and F. M. S.

Read February 4, 1788.

THIS species of worm which is frequently found in the human stomach and intestines, is I believe often confounded by writers with a variety of the *Lumbricus terrestris* mentioned by Linnæus under the name of *Intestinalis*, and by Ray called *Lumbricus intestinorum teres*, from which
however,

however it evidently differs in its conformation, being entirely without the elevated ring so conspicuous in the middle of the *Lumbricus terrestris*.

As it has in general been the opinion of writers on this subject that worms are oviparous, and in conformity to that hypothesis they endeavour to account for their introduction into the human body from their eggs having been received into the stomach with food, I beg leave to offer a few observations which came under my notice by accident, and which I think will serve to prove, that this species, at least, is viviparous.

Every one who has examined this worm attentively when newly discharged from the body must have observed an appearance like white threads folded as it were together about the middle of the worm. This substance has in general been supposed to be the intestines of the worm filled with the chyle it had just sucked from the body, out of which it proceeded; but the fact I am going to relate seems to prove beyond a doubt that this
white

white appearance is in reality the young worms nearly fit for exclusion from their parent.

Some time since having a child under my care who had symptoms of worms, I gave him a dose of calomel for two nights successively, and on the second day a smart purge. On the afternoon of that day the mother brought me two worms in a cup, which she said her child had just discharged *per anum*, and which both proved to be the *Ascaris Lumbricoides*; they were both living and pretty active; as I had not any specimen of that worm by me, I put them both into a phial filled with one third part of rectified spirit, and two thirds water, this appeared to give them great uneasiness, and whilst I was observing their contortions, I perceived something like threads proceeding gradually from the middle of the belly of one of them, which advanced very sensibly for about a quarter of a minute, at which time I could perceive three distinct worms above an inch long, exactly like the parent, all alive and moving briskly in different directions; about this time the

death of the mother put a stop to the perfect exclusion of the offspring, who also died with her, and now remain hanging to the body. The other worm was no otherways affected by the spirits, than by being deprived of its life, and on examining it, I could not perceive any of the thread-like appearance before described.

As some worms are certainly oviparous, as the *Lumbricus terrestris*, &c. perhaps the young of this species, like the viper among the snake tribes, are excluded from the egg whilst in the matrix of the female, but this future observations must determine.

A difficulty now remains, namely, to account for the introduction of this worm into the human body, particularly as it is never found in any other situation. It may not however be amiss to remark, that this species occurs much more frequently among the negroes in the West Indies, than it does in this climate. Is it not possible that it may creep into the body by the mouth whilst a person is asleep on the ground? but I would wish



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4



1. *The Musca cibaria of its natural size*
2. *The same magnified*
3. *The Pupa of the same discharged alive by the patient.*
4. *The same magnified.*

wish this to be considered merely as conjecture.

One practical inference may I think be drawn from the above, namely, that whenever one of these worms is discharged from the human body, we should persist in the use of anthelmintics for some time after, as there is a fair presumption that some young ones may be left behind, who will not fail in time to produce the most disagreeable and often fatal effects.

A R T I C L E VII.

Case of a patient who discharged the Pupæ of the Musca Cibaria, by W. WHITE, M.D. of York, F. R. S. and C. M. S. in a letter to J. C. LETTSOM, M. D. &c. with additional Observations by Mr. J. CHURCH, A. M. F. M. S.

Read May 12, 1788.

J. WATSON, aged about 30 years, by trade a watchmaker, sober and temperate, but indulging a sedentary life, having been

sometime ill, came over here to put himself under my care. I found him much emaciated, his complexion very yellow, he had violent pains with foreness and tension about the region of the liver, his body very costive, stools clayey and tenacious, urine in small quantity and high coloured, pulse quick and tense, he had frequent rigors, and other symptoms of pyrexia. But what distressed him the most was a constant and extreme coldness in the lower extremities, which neither a fire nor the warmest covering had power to relieve for any time together.

It is unnecessary to give a particular detail of the means used for his recovery, suffice it to say, that by repeated bleedings (his blood being very fizy), cooling purgatives, nitrous medicines, and blisters over the hepatic region, in about a fortnight he was much recovered, and finding every complaint, except the coldness in his legs and feet, nearly gone, he went home about fifteen miles from this city. My prescriptions now were powders of the columbo root, with a solution of *sal diureticus*, and once a week a calomel bolus

bolus at night with an opening draught next morning.

In about a month I had a letter from his apothecary, from which the following is an extract:

“ Mr. Watson has continued his powders regularly till within this week, when he reduced the number. He finds his appetite encrease even to be deemed voracious, yet is careful not to overload his stomach. Notwithstanding after each meal he complains of pain about the breast, with a sense of fullness. In general he is regular for stools, but last night being more than usually costive, he took the purgative, with which he had two stools in the morning, and discharged an immense number of worms, two or three of which at his desire I send herewith, they were all very lively. His pulse is good, and he thinks himself in every respect vastly better, his legs have begun to gain their natural warmth, yet he continues the additional covering and frictions. I hope the worms will reach you alive.”

Thus far his apothecary. I received the worms which were evidently a species of maggot, in a very lively state; putting them out of the pill box, they crept about with surprizing quickness, not with the wriggling motion of the common maggot, but very nimbly upon their numerous feet, in which they seem to differ from the common ones, which I think have no feet.

Being replaced into the box, they were deposited in a desk, when, after some weeks, examining them again, I found them metamorphosed from a worm state into beautiful insects of the fly kind, but these were dead from want of nourishment and air. The chrysales being now become dry and empty husks.

The following remarks, with a drawing of the insect were communicated by Mr. Church, one of the Council of the Medical Society.

The insect mentioned in Dr. White's paper is the *Musca Cibaria* of Linnæus. The larva of it is found in old culinary substances, especially

especially in old rotten cheese, and it seems highly probable that the patient had swallowed some of them with his food, which passed unhurt through the stomach, into the liver, after having entered by the biliary ducts. This I am the more readily induced to believe was the case from a circumstance which happened to me in practice some years ago; a child discharged per anum, a live worm with feet, which proved to be the larva of the *Phryganea grandis*, or cadworm, used as a bait by anglers; now as this is an aquatic insect, and feeds under water on other aquatic insects, it is almost certain it must have been swallowed with some water, and passed unhurt through the intestinal tube till it was discharged.

That the action of the stomach will not always kill insects, is evident from the circumstance of the *Ascaris Lumbricoides* living in it unhurt. The *phalæna pinguinalis* also not only lives but is nourished, and undergoes several metamorphoses in the stomach, till at length it produces its moth. The worms discharged by Dr. White's patient, appear

appear to have been in the chrysalis ſtate, and though the circumſtance of their having feet and moving them is rather ſingular, as the *pupæ* of moſt *muſcæ* are entirely motionleſs, yet as we know that the *pupæ* of ſome other inſects as *grylli*, *blattæ*, &c. have the ſame power, it is poſſible that ſome *muſcæ* poſſeſs it alſo.

P. S. The ſuppoſition that theſe inſects were nourished in the liver, and produced the diſeaſe under which the patient laboured, ſeems to be much ſtrengthened by a caſe related by Dr. Thomas Bond, of Philadelphia, in Vol. I. of the London Medical Obſervations and Inquiries, where he deſcribes a kind of leech of an uncommon ſize which had long had its reſidence in the liver of a patient, and was at length diſcharged per anum.

A ſimilar caſe is likewise related by Mr. Paiſley, in Vol. II. of the Edinburgh Medical Eſſays.

A R T I C L E VIII.

On the Efficacy of the Application of cold Water to the extremities in a case of obstinate constipation of the Bowels, with remarks thereon, by WILLIAM FALCONER, M. D. F. R. S. and corresponding Member of the Medical Society of London.

Read April 23, 1787.

A LADY about 28 years of age, daughter of a gentleman of rank in Ireland, had the misfortune to lose her husband, with whom she lived very happily, about two years before the time of her coming to Bath. Her concern on this occasion, which was very great, produced several bad effects on her health, particularly a violent pain, resembling a cramp, about the region of the stomach, which used to continue for several hours, and to go off rather suddenly, with a sensation, as she described it, of something bursting in the stomach; after which she
could

could bring up air by gulps, which presently gave ease. These paroxysms used to attack her about once every *eight* or *ten* days, but the intervals were not regular, either as to the number of days, or time of the day. The cause immediately producing these fits of pain, could not be traced to any connection with any circumstance in her regimen or manner of life, but they attacked her indiscriminately, whatever food or manner of life she made use of. Although the pain was excessive, her pulse during the paroxysms was in general scarcely quicker than natural, nor was there any thirst or considerable increase of heat of the skin. Sometimes it was attended with sickness and retching, but more frequently without those symptoms. Costiveness seemed not to be connected with the complaint; as it had several times come on when the body was regular, and even in a lax state, though without purging. A stool, however, procured during the paroxysm, seemed, as she thought, to bring it sooner to a termination. In the intervals of her disorder she was tolerably easy and chearful, and had a moderate appetite. For the painful

ful and dangerous complaint above described, she had tried a great variety of medicines. Blisters had been repeatedly applied to the region of the stomach and abdomen, ipecacuanha made into pills with the aromatic pill, and that of storax, taken in small quantities, a composition I have seen of service in habitual cholics, was tried, but without effect. A strong infusion of cascarilla, and of the Peruvian bark, under the idea of the disease being of a periodical nature was also exhibited, but with as little success as the other trials. Opiates had been administered both internally and in external application both in the intervals and also during the continuance of the pain, but without any other effect than some little temporary abatement.

In the evening of the 15th of June 1783, the weather being then very warm, she was seized with her usual pain in a manner rather more violent than common, to alleviate which, a clyster of the domestic kind was administered, which produced, as I was told, three small stools in the course of the night.

Next

Next morn, (June 16) when I saw her first during this paroxysm, her pain was very great, and continued so during the whole day, in spite of opiates administered both internally and externally, and the free use of fomentations. Two clysters were also injected, but without effect, as they neither produced any evacuation, nor even came away themselves.

The next day (June 17) finding she had passed a very painful night, though without much fever, I directed a blyster to be applied to the abdomen, and a clyster of infusion of warm herbs, with an ounce of the tinct. foetida, be thrown up, and twenty grains of the pil. saponac. to be taken directly. In the evening, finding her still without any evacuation by stool, though rather easier, I directed a purging mixture of infusion of senna, together with the tincture, to be taken every three hours. Next morn (June 18) she was much worse in every respect. Her pain was more acute, a disposition to vomit frequently had come on, and no evacuation by stool had been procured.

A cordial

A cordial mixture of the spirituous and simple mint waters was directed to be taken frequently in small quantities, and an infusion of a drachm of tobacco leaves, directed to be thrown up as a clyster. About two o'clock the same day, when I visited her again, I found all the bad symptoms aggravated. Her vomiting was become nearly incessant; no evacuation had been procured; and her pulse had risen to 108 in a minute, which was the first material alteration I observed in that circumstance. Her urine was small in quantity, and red and turbid. Her skin which before had been soft and clammy, was now hot and dry, and the pain, which which was before aching and pinching, now gave the sensation of burning, as if some heated body was in her stomach and bowels. In this situation I recommended first bleeding, and immediately after that operation was over, the application of cold water to the extremities; but I added, that as it was a thing rarely ventured on, and indeed not very generally known, and what I myself had no knowledge of from actual experience, that my opinion might be strengthened by
that

that of some other person, and desired Dr. Dobson might be sent for.

When the Doctor came he approved of the bleeding, but thought it would be proper to try some other means before we ventured on the application of the cold water. She was accordingly bled to zviij , and a purging mixture of infusion of senna and tincture of jalap directed to be taken, three spoonfuls every three hours; which however was rejected immediately, as was a strong solution of Rochelle salt administered in the same manner. A clyster of the decoct. com. with sea salt was also injected but without

The next morn, (June 19) all her symptoms were aggravated, her cries and groans were now become incessant, and every motion, however slight, encreased them to a shocking degree. The smoak of tobacco had been attempted to be thrown up, but without success, though often tried. She was again bled to six ounces, and two scruples of jalap were divided into two doses, and

and one of them swallowed, but immediately thrown up, as was an ounce of castor oil, and twenty grains of mercurius dulcis. Fomentations had all along been frequently applied, but without much relief, or even temporary abatement of the symptoms.

When we visited her next morn (June 20), all the symptoms were, if possible worse. Dr. Dobson now consented, when, I confess, I feared it was too late, to make a trial of the cold water, as I had before proposed. To do this effectually was however no very easy task, as motion continued to give such exquisite pain. Nevertheless, with much trouble, she was gently turned across the bed, and her feet drawn over the side of it, and her back raised with pillows. An empty tub was then put to receive her feet, and her hands were placed in a large empty basin. Both hands and feet were dashed at the same instant with cold spring water, into which some common salt (in order to increase its coldness) had been just thrown. This was continued for the space of three or four minutes. She expressed no dissatisfaction, but said her
pain

pain was rather abated, and that she felt a sensation of motion in her bowels, which she had not before done during the present attack, and it was observed by her attendants that she bore being moved back again into bed rather better than before. When she had recovered her usual warmth of temperature, which took place in about 15 minutes, the same operation was repeated, and immediately after it was over, she said that her pain began to abate, and that she felt she should soon have a stool, which immediately followed, and was succeeded by many more plentiful evacuations of the same kind. As her stools came away, her pain and vomiting grew milder, and less frequent, but the profuseness of the discharge weakened her so much, that her life appeared to be nearly in as much danger from the excess of the evacuation, as it had been before from its obstruction.

Cold sweats were almost incessant, and frequent faintings came on during the space of two days after the commencement of the discharge taking place. Wine, however,
and

and other nourishing food frequently taken, supported her under the violence of the evacuation, by the assistance of which her strength in a few days began to return. Her body in a short time became regular, and she had no return of the pain in her bowels, to which she had been before subject, but her health continued weak, her spirits low, and her strength diminished; but scarcely I think, so much as might have been expected from what she had undergone. The soreness of the belly, which during the continuance of the obstruction of her bowels, was very great, went off in three or four days, but her appetite was but small, and her stomach flatulent. In about a fortnight after the above complaint, she went to Bristol hot-wells, and continued there about two months, during which time I saw her twice; but she had not during that time any return of the cholicky disorder. From Bristol she went to Ireland, where in a few months she died, but whether from a return of her disorder of the bowels, I am not informed.

Remarks on the preceding Case.

The case above related, affords an unequivocal proof of the good success of the application of cold water to the extremities in a most obstinate constipation of the bowels attended with exquisite pain, fever, and probably a considerable degree of local inflammation. It appears plainly from the foregoing narrative, which is related with all possible accuracy, that the situation and circumstances of the patient were very unpromising. No absolute signs of mortification had indeed appeared, but every symptom seemed to indicate that such a termination of the disorder was upon the verge of taking place. This circumstance is highly material to be noted, as it teaches us not to despair of success from such an application, at any period of the complaint, even when attended with the most discouraging symptoms, provided no signs of mortification have appeared.

Many reasons however concur to recommend the use of this remedy, before the disease

ease

eafe has proceeded to fuch a length as in the prefent cafe, if fuch trial be in our power. The application would no doubt have been at leaft equally fafe, had it been tried forty-eight hours before, and its chance of fucceeding probably greater, as the complaint was lefs advanced. Another confideration equally important is, the danger of bringing a large accumulation of purgative medicines into action at the fame inflant, which will probably be the cafe, if we wait until the difeafe be far advanced. The immediate effect of the cold application feems to be, to rouse the bowels from a torpid and indolent flate into action, and to impart to them tone and power of contraction. How hazardous then muft it be to have the force of feveral (probably fome very flrong) purgatives all exerted at one time? In the prefent cafe the life of the patient was probably faved by the purgatives that were given by the mouth being thrown up. Had they remained and combined their force with thofe that were injected in clyfters, it is more than probable flhe muft have funk under it. As it was, it required the moft unremitting at-

tention for nearly forty-eight hours to support her with the strongest cordials of the nutritious kind, under so profuse an evacuation, which probably was excited only by the clysters which remained undischarged. It would be prudent therefore, when this application may be tried, and provided, as will probably be the case, that many purgative medicines have been previously administered, and continue (however inactive they may for a while be) in the body, to have in readiness some warm cordial of the nourishing kind, as bread panada, rice-gruel, sago, and such like, together with warm negus, mulled wine, &c. for the patient to take of frequently during the course of the evacuation; for the discharge will probably be so sudden, and so profuse, as to hazard immediate dissolution, if this precaution be not carefully attended to.

I was under some concern on account of the tobacco clyster which remained in the body three days. The violent, and even poisonous effects of tobacco upon animal life, gave me some fears lest such an infusion,
continuing

continuing so long undischarged, might produce some mischievous effects. But this clyster was discharged with the other stools, without causing any symptoms that could be ascribed to it.

It is not meant to be concealed, that the trial of the above remedy was principally suggested to me by a well-known paper of Doctor Stevenson's, in the second part of the fifth volume of the Edinburgh Medical Essays. Two cases in point are there related which encouraged me to advise the experiment to be made. The Doctor there informs us that some person, not of the profession, having read in a loose leaf of some old book, that an obstinate constipation of the bowels had been removed by throwing cold water on the feet, put it into practice in Holland on an acquaintance of his, and of the Doctor's, in a case of that kind, that had proved obstinate to all Dr. Boerhaave's applications for several days. He adds that he was at some pains to search for the author of this hint, but could find nothing like it, save the account that Brassavo-

lus gives of Savanarola's curing the Duke of Ferrara of a three days constipation by making him walk barefooted on a cold wet marble floor.

But traces that might lead to such a practice may be found even in authors of high antiquity. Hippocrates* advises the external application of cold water in the tetanus, and in convulsive complaints, which Van Swieten observes, are attended with obstinate

* Hippocr. Aphor. Sect. V. 21. De humidorum usu XI. 16.

The following case from Hippocrates which I met with since this paper was sent to the Society, is very applicable to the present subject. "A woman in good health and corpulent, having taken a medicine with a view of promoting pregnancy, was seized with pain in the stomach, and tormina of the intestines, together with enlargement of the abdomen. Her breath was obstructed, and a great depression of spirits accompanied the pain. She had thrown up some blood by vomiting, and had five times fainted away in such a manner, as to be, to all appearance dead: she had vomited by means of cold water, but without any relief of her pain, or difficulty of respiration. About
thirty

nate spasm and great pain and inflammation of the bowels. Alexander Trallianus gave cold water, as drink, in cholics arising, as he says, from hot and bilious humours, where the vital parts remained uninjured, and injected clysters of the same, a practice that I have been informed by an eminent physician that he has successfully imitated in cases of obstinate costiveness, and which was, he informed me, tried, with advantage, upon the late Sir Hans Sloane, towards the latter part of his life.

Crato

thirty amphoræ of cold water were poured upon her, and this was the only thing that appeared to give relief. After this a large quantity of bile was discharged by stool, whereas, as long as the pain continued, nothing would pass. The patient recovered.”

Γυνή υγιαίνουσα, παχῆια, κνήσιος ἔνεκεν, ἀπο καταπότις ἀδύνη εἶχετο τὴν γαστέρα, καὶ σφόδρος ἐς τὸ ἐντερον, καὶ ᾤδησε. Πνεῦμα δὲ πρόδισατο καὶ ἀπορίη σὺν οἰσύνῃ. Καὶ αἷμα ἤμεσεν οὐ πολὺ. Καὶ ἐξέθανε πεντακτες, ὡς τεθνηῖαι δοκέειν. Καὶ οὔτε ἐμέσασα ἀπο ὕδατος ἐχάλα, οὔτε τῆς οἰσύνῃς ἐπούσης, οὔτε τὴν πνοήν ὕδατος δὲ κατεχυθησαν ψυχροῦ ἀμφορείας ὡς τριακοντα κατὰ τοῦ σώματος, καὶ ἐδόκειε ἀρὰ τοῦτο μόνον ὠφελέειν. Καὶ ὑπερον κατῶ ἐχώρησε χολὴ συχνή, ὅτε δὲ ἡ οἰσύνῃ εἶχεν, οὐδὲν ἐδυνατο χωρῆσαι, καὶ ἐβίω.

Hippocratis Epidemic. Lib. V. Sect. xviii.

Crato*, an eminent person in Medical science, but concerning whose date I am not informed, and Valefcus di Taranta, who lived about the year 1387, both performed great cures in pains of the bowels by applying linen cloths, dipt in cold water, to the abdomen. Septalius †, likewise an author of later date avifes cold water to be given internally in violent cholicky complaints, and relates a remarkable cure, that he performed by these means upon a Spanish nobleman in the most desperate circumstances. Hoffman likewise tells us, that in the warmer climates, as in Italy, and especially in the neighbourhood of Rome, cooling applications, and especially cold water, is found by experience to be the most efficacious remedy. Amatus likewise, and Zacutus Lusitanus, advise not only cold water, but the use of ice also, in the bilious cholic.

Hoffman ‡ also describes a case which happened at Leipfick, wherein he himself
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* Quoted from Hoffman de intestinorum doloribus.

† Ibidem Hoffmanni.

‡ Hoffman de intestinor. doloribus, Observ. V.

was concerned, of a lady, who, after having tried in vain all the usual remedies in the most violent pains of the bowels, was at last advised by the physician that attended her, together with Dr. Hoffman, to make a trial of cold water, taken internally, which produced a plentiful perspiration, which was succeeded by quiet sleep, and a complete relief of all the painful symptoms. The same physician assured Dr. Hoffman that he had applied, and commonly with the best success, linen cloths dipped in cold water. From a review of the above I am inclined to think that the use of this remedy is best adapted, if not confined, to such cases as are attended with fever and inflammation, and particularly with heat of the skin. The effect of the cold application probably depends upon the shock produced by the sudden change of temperature, and where this difference is not pretty considerable, it is probable it will be of little service. I shall not here enter into any argument concerning its mode of operation, or whether its action may be considered in the light of a tonic stimulant, or as a sedative, but which soever
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of these opinions be adopted, I apprehend the effect must be proportioned in a good measure to the heat of the body, and the alteration produced in the temperature thereof, by the application of the cold water. Hippocrates, who lived himself in a warm climate, speaks of the middle of summer as the best time of year for the trial of cold water in the tetanus. Alexander Trallianus confines its use to such cholics as arise from hot bilious humours, probably meaning such as are attended with heat and inflammation, and especially in the summer season. Zacutus Lusitanus and Septalius both speak of cold water as a remedy proper to be tried in incipient inflammations attended with great heat and fever, and Hoffman himself thinks it particularly proper in the bilious fevers attended with cholic, that occur in hot climates. It is not unworthy of remark that the case recorded by Dr. Stevenson, as well as that above-described, happened at the warmest season of the year: Dr. Stevenson's commencing on the seventh of July, and that above-described upon the fifteenth of

of

of June, and when the weather was very warm.

It will be proper, when a trial of this remedy shall be made, to caution the attendants against any ill-placed timidity in using water, not of the proper degree of coldness. The efficacy of the application depends on its making a sudden and active impression, which is only to be effected by a considerable degree of cold. So far therefore should we be from any reserve in this respect, that in warm weather, we should not only employ the coldest spring water we can procure, but even encrease that quality by artificial means. In the instance above-described, the application of the cold water was made to the extremities, but in some of the other accounts the abdomen was the part on which this remedy was tried. Which of these modes of using it, is to be preferred, I cannot determine. Perhaps they may be equally effectual. The feet and hands seem more convenient if the patient can bear to be moved, and likewise afford the best opportunity for repeating the impression of cold, by pouring
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on fresh streams of water; but if this cannot be put into practice, cloths, dipt in cold water, may be laid on the abdomen and frequently changed. It appears not improbable that the vitriolic or nitrous æther, both of which produce a considerable degree of cold by their quick evaporation, might be employed with advantage. If used with this intention, it should be poured on the abdomen, and just spread over it, and suffered to evaporate without the part to which it is applied, being covered up. It has the advantage of producing a very sudden, as well as considerable degree of cold, and of not wetting the bed-cloaths. Whether it may benefit the patient by any virtues of the anodyne kind which it may be supposed to possess, when used in this way, I do not determine, but leave that hint to the empirics with whom æther under various disguises has long been a favourite medicine.

A R T I C L E IX.

On the Efficacy of the Gummi rubrum astringens Gambiense (or as some term it the Gummi Kino) in intermittent fevers, and certain preternatural discharges. In a letter to Dr. LETTSOM, from ANTHONY FOTHERGILL, M. D. &c.

“PLURIMA QUÆ ADHUC DESUNT, SUPPLEAT ÆTAS.”

Read October 16, 1786.

DEAR SIR,

I HAVE not been unmindful of your request, and if the following paper should prove suitable to your intended publication, it is entirely at your disposal. The inquiry was begun at the entreaty of our late excellent friend Dr. J. Fothergill, who first introduced this new astringent gum into our *materia medica*, and whose account of it, as communicated in the first volume of the London Inquiries,

Inquiries, is the only one extant ; at least that has yet come to my knowledge. Having minuted down, agreeable to his request, such observations as occurred to me, I afterwards communicated the result. The former paper which I sent him, and which is now missing, contained several experiments on its chemical and pharmaceutical properties. The present one gives some account of its medicinal virtues.

As the G. Gambiense contains an aromatic combined with an astringent quality, and therefore in some degree approaches to the Peruvian bark, it seemed not unreasonable to suppose that it might possibly in some cases, supply its place, especially where œconomy is no small object, as in hospital practice, and amongst the poorer sort of patients in general. The Gum being not only considerably cheaper than the bark, but also much less liable to sophistication. The principal cases in which it was tried were intermittent fevers, and preternatural discharges. In some instances it succeeded far beyond my hopes, in others it disappointed my expectation. But
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the general result (of which the following is an impartial account) at least intitles it to further examination.

C A S E I.

A NN MUSKETT, aged 18, of a robust habit, was seized in the autumn of the year 1767, with a quotidian ague. The paroxysms were severe, always returning at midnight, attended with hiccup, and violent pain in her head, and through her body. After she had tried the bark, and some other medicines at home for about two months without effect, she came to the Northampton hospital, and was admitted an out-patient under my care. I recommended tinct. gum. gambiens. prepared with proof spirit in the following method :

R. Gum. rubr. Astring. Gambiens. pulv. ℥ij.
Sp. vini ten. lbj.
Digere dies sex & cola.

A similar tincture I am glad to find, has at length been adopted into the new edition
of

of the Edinburgh Dispensary, which it is presumed will be found much superior to the *tinctura japonica*: half an ounce to be taken an hour before the fit in a draught of herb tea, and to be repeated every four hours during the intermission. The fits soon became milder, and the tincture was continued. In about a month, the ague wholly disappeared, and she was dismissed with an injunction to return in case of a relapse, but as she continued free from complaints, she found no occasion to revisit the hospital.

C A S E II.

SARAH CULL, aged 14, of a sound constitution, was admitted Dec. 17, 1767, for a quotidian ague, which she had had about six weeks, attended with the usual symptoms. After an emetic she took every four hours a scruple of the gum. gambien. in herb tea. It occasioned no sickness or nausea (which sometimes indeed happens when the gum is given in substance.) But on the
contrary,

contrary, her appetite during its use, daily improved. The ague ceased in less than ten days, and she was dismissed cured.

C A S E III.

ANN POOL, aged 37, of a very feeble constitution, had for several years been afflicted with hysteric symptoms, for which she became an hospital patient, August 15, 1767, and was in six weeks considerably relieved by extr. cort. peruv. & sp. vol. foetid. But what seemed remarkable, she was, during liberal course of the bark, seized with a tertian intermittent, against which the grand febrifuge (as it is commonly termed) appeared to have lost its wonted efficacy. In its place therefore, I ordered her half a dram of the gum. gambien. to be taken every four hours between the paroxysms, without any previous emetic. This she continued about a month when the ague left her, and she was discharged. It may not be improper also to add, that the daily use of the bark, and after-



wards of the astringent gum did not at all interrupt the regular return of the catamenia at the usual period. A circumstance which I have sometimes observed in other cases during the use of powerful astringents, and seems not unworthy of attention.

C A S E IV.

JONATHAN WILLES, middle aged, was admitted an hospital patient, Dec. 5th, 1767, having laboured under a tertian ague for nine months, for which he had taken bark about three months, but without any lasting benefit. The disease was attended with a severe cough. After an emetic of antimonial wine, I directed half an ounce of tinct. gambien. in warm linseed tea every four hours, and a common linctus to be taken occasionally when the cough was troublesome. The ague entirely disappeared in less than a month, but the cough which had been of long standing still continued, though in a less degree; at length, however, it yielded to country air, and suitable medicines.

C A S E

C A S E V.

ELIZ. BROUGHTON, aged about 40, was admitted May 7, 1768, for a tertian ague of a month standing. An emetic was ordered, and the tinct. gambien. as in the preceding cases. The ague left her in three weeks, but returned the week following. On repeating the medicine, she soon recovered without suffering any further relapse.

C A S E VI.

THOMAS HALL, aged 20, was received into the hospital, Nov. 21, 1767, for a tertian of six weeks standing, accompanied with the ordinary symptoms. I ordered a vomit, and afterwards a scruple of g. gambien. in herb tea every three hours, and in three weeks he was discharged cured.

C A S E VII.

JOHN LUCK, middle aged, and of a sickly constitution, was admitted Decem. 5, 1767, for an obstinate intermittent, under which he had laboured for several months, during which it had assumed various types, and of late had become totally irregular. After an antimonial emetic, the tinct. gambien. was given between the fits as above. By which means the disease became much less severe, but still the paroxysms returned at irregular periods, notwithstanding the medicine was continued almost two months. Tinct. cort. peruv. was now given in its stead, and an antimonial sudorific during the paroxysm, nor had these any better success; for the ague continued as obstinate as ever, during the remaining winter, and even till the spring was considerably advanced, when it went off spontaneously; rather perhaps in consequence of the genial warmth of the season, than real utility derived from any of the medicines. Hence the wonderful cures of agues ignorantly attributed to a variety of the

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the most absurd and insignificant remedies, merely in consequence of the nostrum being administered at this lucky period.

C A S E VIII.

ELIZ. GADSDON, aged about 50, of a very slender habit, had long laboured under an irregular ague, which had been repeatedly suppressed by the cortex, but still returned, and of late had assumed the quartan type. She was admitted, Nov. 21, 1767. An emetic was first given, and afterwards the tinct. gambiens. every three hours during the intermission. This she continued for the space of three weeks, when she was dismissed cured.

C A S E IX.

HAN. POWELL, about 40 years of age, and of a delicate constitution, was admitted December 5, 1768, having laboured under an obstinate quartan a whole year, which had

resisted the bark, and various other medicines. What was remarkable in this ague, the fit always begun in the soles of her feet; after which it gradually ascended to her head. An hour before the approach of the returning fit, I ordered her an emetic of vinum antimoniale, and about six drams of the tinct. gamb. to be taken in an infusion of mint every four hours during the apyrexia. The ague disappeared in about five weeks, and she was discharged; but she had not been many days absent before she relapsed. Upon which, the tincture was repeated for a fortnight longer, when the ague again disappeared, but did not afterwards return.

C A S E X.

JOB WRIGHTON, aged about 40, of a slender habit, was admitted Dec. 19, 1768, for a stubborn quartan of the autumnal kind, for which he had taken bark without success. After a common emetic, the tinct. gambien. was administered as above, by which the fits became much milder, till the weather

weather grew extremely cold, when the disease increased, and all the symptoms were aggravated. The bark was again tried with an addition of crude sal ammon. but the ague continued to gain ground, and from a quartan became a quotidian. Now the emetic was repeated, and likewise increased doses of the tinct. gambien. An antimonial diaphoretic was also administered an hour before the fit. The paroxysms grew shorter, and the disease soon yielded to this method without any subsequent relapse.

C A S E XI.

W. MAYE, aged 24, of a slender habit, having about the beginning of Dec. 1767, just recovered from a jaundice, was seized with an obstinate quartan ague. The paroxysms were long, and severe, but not accompanied with any unusual symptoms. An emetic was first exhibited, and afterwards half a dram of the g. gambien. in a draught of herb tea, every four hours. Before he had taken the twelfth dose, the ague vanished,
and

and though from that time he discontinued the medicine, it did not return.

C A S E XII.

RICH. ALLEN, a robust man, aged 40, was admitted Jan. 28, 1769, for an autumnal quartan, which had continued obstinate above four months. The cold fit generally lasted full three hours, during which, his appetite was voracious, and he eagerly devoured not only his own food, but also that of the other patients, when he could get it. The rigor was succeeded by a very severe hot fit, which continued several hours. After an emetic, he took half a dram of the g. gambiense every four hours, during the intermission. The symptoms abated, and at length ceased for about ten days, and then returned with greater violence. The emetic was now repeated, double doses of the gum were administered, and an anodyne pill with extr. thebaic. at the beginning of the hot fit. The paroxysms from this time became milder, his appetite more moderate, and in about
three

three weeks longer, the ague entirely disappeared. It may not be improper to observe, that in some other obstinate agues, which have occurred since, wherein the hot fit was attended with acute pains in the head, or through the body, an opiate was given at the approach of this second stage of the paroxysm with good effect. It seldom failed to alleviate the symptoms by exciting a copious perspiration, succeeded by a placid, and refreshing sleep. This method, however dissonant to ancient maxims, is now sufficiently established by the experienced Dr. Lind, in his valuable observations on diseases of hot climates.

In the preceding cases, no auxiliary medicines were employed, except those which have been specified, nor indeed was there much need of them, as the gum alone, after the use of an emetic, generally answered every intention of cure. The authenticity of these cases (being chiefly hospital ones) may at any time be confirmed, by comparing the above extracts with the register kept in the hospital book.

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The success of the astringent gum in some of the preceding instances, and particularly where the peruvian bark had failed, may serve to shew that it is not undeserving the attention of practitioners. It is by no means, however, offered to their consideration as a specific in intermittents. Nor must it be concealed, that in three later cases, which seemed in no wise different from some of the foregoing ones, it entirely frustrated my hopes, and the cortex afterwards, though not without much difficulty, performed a cure.

In preternatural discharges, the gum gambiense has been tried with various success. To transcribe the histories at large would extend this paper to an immoderate length. Let it suffice therefore to observe in general, that in profuse discharges of the catamenia, it has sometimes afforded signal relief. Likewise in recent diarrhæas, and dysenteries, after the necessary preparative evacuations. A youth of 14, who from infancy had been troubled with an incontinency of urine, was remarkably relieved by the daily use of the gum made into an electary with syr. c mecon.

In the fluor albus, it has hitherto generally disappointed my expectation. In one case of a chronic dysentery; in another of a diabetes; and in a third of a seminal weakness, it was tried a long time with no better success. In justice to the medicine, however, it ought to be observed, that the two former cases afterwards baffled a variety of other remedies, and at length terminated fatally: the latter remained far from being cured. But on what article in the *Materia Medica* can we rely, where the internal organs are decayed, or have entirely lost their natural tone? How often in such untoward cases, have we not occasion silently to lament the inefficacy of our most celebrated remedies, and candidly to acknowledge the imperfection of our art!

Such at least are the real sentiments of

Dear Sir,

your sincere friend,

A. FOTHERGILL.

Bath, Sept. 24, 1786.

ARTICLE

A R T I C L E X.

An Account of a Case of a Tetanus successfully treated by the Use of Calomel, Bark, Wine, and the Cold Bath; in a Letter from Mr. JOHN THO. SHOAF, Student of Medicine at ANNAPOLIS, to Dr. BENJAMIN RUSH, of PHILADELPHIA. Communicated by Dr. RUSH, in a Letter to J. C. LETTSOM, M. D. &c.

Read December 3, 1787.

FROM a presumption that your humanity will be pleased at being informed that a fellow creature at this moment, perhaps, owes the blessings of life and health to your discoveries, I have taken the liberty to intrude on your time, the relation of a case of tetanus, whose happy termination is sufficient to establish the mode of practice recommended by you in this disorder.*

To Dr. Murray, of Annapolis, my preceptor, under whose care I imbibed my earliest
ideas

* Memoirs of the Medical Society, Vol. I. page 65.

ideas of medicine, an application was made by a gentleman, whose negro boy, as he expressed it, “ was lying at death’s door, with “ a lock jaw, arising from a wound in his “ foot.” I mentioned to the doctor your method of cure. He readily acquiesced, and directed me to pursue it.

The gentleman lived some miles from this city, and conceived the case so far beyond the power of medicine, that he thought it unnecessary the boy should be visited, and only wished such medicines and advice as might be thought proper, from his report of the complaint, to be given to him. This, with some other reasons, prevented my seeing the patient during the disease, though very much interested in the event, as I had been a witness to the melancholy termination of some other cases of this nature, in which opium, warm, and cold bathing, had been employed to the utmost extent proposed by the latest and best authors upon this subject. I wrote to the gentleman freely at the time the application was made, and begged him to pay attention to the symptoms and the effects of
the

the course proposed. He has since very politely and sensibly given me an accurate description of the case, and answered with candor all the questions I proposed to him.

A negro boy, about thirteen years of age, descended from healthy parents; of a robust constitution, and not subject to intermittent fevers, which prevail in that part of the country in which he lives, and who, from his infancy, had been exposed to the hardships of a Maryland negro, by accident on the 29th of May run a large splinter into his foot, near the insertion of the flexor primi internodii policis pedis: it penetrated a considerable depth, and was in part extracted, but with difficulty, by some of the family. Little blood issued from the wound, which remained painful four or five days, without any appearance of suppuration, and scarce any of tumefaction; when by a second attempt, the remaining part was extracted, and the wound immediately healed. Some days elapsed without any complaint from the patient, or any attention from the family. June 10, he complained of a rigidity in the
small

small of his back, with slight spasms extending to the shoulders (particularly confined to this tract). 11th, he complained of extreme pain, and the spine was a little bowed. 12th, the spasms extended to the neck, and he had a difficulty in deglutition. His master applied a blister to the back of his neck, which seemed to afford some relief; however, in the course of the two following days, the whole body was in a state of rigidity. The jaws became clenched in such a manner, that it was with great difficulty anything could be got into the mouth. The spasms recurred with violence and rapidity; the sensorium at times was much disordered; yet, in the momentary intermissions of convulsions, he expressed in the strongest terms his sense of hunger. His belly was bound, and he had no discharge of fæces for three days, although injections had been administered night and morning. June 14th. This was the state of the patient when application was made for assistance, when the following medicines were ordered:

R. Calom. ppt. gr. x. sta. sumend. et repet. hora quarta si alvi solutio non superven.

He

He took two doses, which procured four dejections. There was no alteration in the recurrence of the spasms, and no delirium this night. 15th, took eight teaspoonfuls of bark, and a pint of Madeira wine, and was bathed three times in cold water; he took likewise one grain of opium at bed time. Symptoms not increased; dozed a little thro' the night. 16th. Complained of sore* mouth and gums, took ten doses of the bark, had a pint of wine, was bathed as before and took a grain of opium at bed time. 17th. The spasms were not so frequent, and the muscles of the jaws were somewhat relaxed. His mouth was a little sore. He continued the bark, wine, and cold bath, without the pill at bed time. Appearances grew more favourable daily. On the 21st the master informed us the boy grew so much better as to sit up, though he was not perfectly relieved from the convulsions, and had still a slight rigidity in his jaws. He was directed to continue the same course, and to use a rich invigorating diet

* If this arose from the mercury, and the cold bath was continued after, is it not a proof that they may sometimes be used together?

diet for a week longer : when I had the pleasure of being acquainted, by a very polite letter, which contains in substance what I have related respecting this case, that the patient was in perfect health and that a total desquamation of the cuticle had taken place.

In the first instance, I directed an incision into the part wounded and some stimulating application to be used ; but this was omitted. The cold bath was continued for ten minutes at a time, and applied by pouring buckets of cold water over the head, after which the patient was well rubbed and put to bed. The pleasure I experienced in the success that attended this case has, if possible, more firmly impressed the opinions I had readily embraced from your publication on this subject. Its cause is certainly debility, and its cure must depend on those remedies which most powerfully obviate it.

I am, Sir,

your humble servant,

JOHN THO. SHOAF.

A R T I C L E XI.

An Account of a Case of Tetanus successfully treated by the Use of Calomel, Bark, and Wine; in a Letter from Dr. CORNELIUS CONYNGHAM of VIRGINIA, to the Hon. GEORGE MASON, Esq. Member of the Convention of the United States, assembled in PHILADELPHIA, 1787. Communicated by Dr. BENJ. RUSH, to J. C. LETTSOM. M. D. &c.

Read Dec. 3d and 17th, 1787.

DEAR SIR,

AS the communication of the following case may be of use to the public, I hope you will excuse the trouble I give you in requesting you to shew it to Dr. Benjamin Rush, who is at liberty to make what use he may think proper of it.

On the 18th of May, I was sent for to a negro boy of yours, ten years of age, and of a robust make. He had lost the use of
his

his limbs (as the overseer expressed it) three or four days before, and was now all over rigid, except his arms, and he had been costive from the very beginning of the disorder. I immediately gave him fifteen grains of calomel, and had thoughts of using the warm bath and opium; but having lately read a piece of Dr. Rush's on the cure of the tetanus by bark and wine; from the reasoning there used, I did not hesitate to put his mode in practice, and directed, if the calomel did not operate in two or three hours, to give him a drachm of the bark, in a glass of port wine every two hours. 20th. He had a plentiful stool, after which he appeared to be much easier. 21st. I saw him again, when he could move his head from side to side, though the stiffness elsewhere was much as before. I directed a dose of salts for him the following morning, provided he had not a stool before that time. 22d. He complained of a soreness of his mouth and throat, and on examination, the inside of his cheeks and tonsils, were found to be ulcerated. Remarking that Dr. Rush advises the raising an inflammatory diathesis in this disorder, I was not

at all alarmed, as I apprehended that it arose from the mercury's lodging so long in his bowels, and therefore only directed his mouth to be gargled with alum water. 25th. I found him sitting up, the soreness in his mouth and throat gone, his appetite good and belly regular; his legs and thighs still stiff and belly hard, but the spasms evidently on the decline. June 9th. Still mending, but the left leg and thigh still rigid. Some days ago he voided five worms about four or five inches long at one stool, and in a day or two after he voided four more all dead. I directed four grains of calomel to be given at night, and a gentle purgative in the morning, the bark to be continued as before. 15th. I was informed by Capt. Wm. Mason, that the boy was walking about, that the last dose of mercury had very happy effects, but that no more worms had come away. He took twenty ounces of bark during his illness.

As the above case terminated happily, I think the public highly indebted to Dr. Rush, who first suggested the curing of this disorder by bark and wine, but as mercury has been
mentioned

mentioned by some eminent writers, I thought proper in this case to continue it, with the bark, and was happy to find it answered the desired intention. There may some doubt remain with respect to the primary cause of this boy's complaint. The worms he discharged may be supposed to have some share in it, but the overseer says he lay out of doors the greater part of an evening after a hot day, previous to his being seized with the spasms.

In this case, as there had no opium been given through the whole course of the complaint, the costiveness must have been the effect of the disease. Small doses of calomel were repeated for some time after, at the interval of every two or three days, until he got entirely well.

I am, Sir, with respect and esteem,
your obedient and humble servant,

CORNELIUS CONYNGHAM.

Colchester, Aug. 19, 1787.

ARTICLE XII.

A Case of the Uterus lacerated by the Force of Labour Pains, by JOSEPH HOOPER, Surgeon, and F. M. S.

Read November 6, 1787.

A Gentlewoman who was taken in labour about four o'clock in the morning, sent for me in a great hurry about eight. She had had three children before, and (though she had been attended at different times by two eminent practitioners) they were all still born, from the difficulty of her labours; she being very corpulent, her pelvis narrow and children large. However, from strong recommendation, she entertained great hopes of my delivering her of a live child, of which both she and her husband were extremely desirous. Upon entering the room, I found her in very strong pains, and by the touch perceived the membranes pushed to the middle of the pelvis, but rather of a conical

nical form. I could easily feel the os internum towards the pubis, but a great part of its segment towards the sacrum was out of the reach of my finger, nor could I feel any part of the child presenting. In about half an hour the membranes broke, as she took a strong pain sitting on the close stool, and a great quantity of coffee-coloured water was evacuated, her pains still continuing very frequent and strong. I then examined again, but could still find nothing presenting. In about an hour more I could just feel the child's head high up at the brim of the pelvis; but still finding the vacancy in the os internum, I attributed it to a laceration which might have happened in one of her former severe labours. I therefore encouraged her to wait with patience till the head should further advance into the pelvis, when, I flattered myself there might be a chance at least, to save the child with the forceps; to which end I kept her as quiet as possible, supporting her with broth, and as she complained of great thirst, some balm tea, occasionally. But though the pains continued strong, with (as she called it) a tearing sensation in her back,
even

even in the intervals of the pains, yet as I examined from time to time, I could not perceive the least advance, nor indeed did the head during a pain seem to be at all protruded. About four in the afternoon she said the pain had entirely left her back, and was wholly in her belly and thighs, with continual nippings within side her belly. After this, upon touching, I found the head rather higher than before, which disheartened me not a little, especially as her pains began to abate considerably. I then the more thoroughly to satisfy myself as to the situation of the head, introduced my left hand, and with my fingers in a flattened form between the head and sacrum, felt the left ear. In doing this I did not meet with the least pressure from the child's head, which was quite disengaged; nor could I even now feel the posterior part of the os internum. Being, however, satisfied as to the position, I withdrew my hand, the pains still growing less frequent and weaker, but she lamented greatly the nippings and pinchings in her belly, which rather increased as the true labour pains decreased. She had frequent reachings, but brought up
nothing

nothing except wind. Sometime after, upon touching during a pain, the head was not to be felt ; I then desired her to sit on the side of the bed a little while, after which I again examined and found it just as before. Upon considering this circumstance, with the state of my patient, who was now much lower and fainter than she had been all day, that some small hæmorrhage, which at times had appeared from the beginning of her labour was now increasing, that the pelvis was narrow, and the child probably large, I began to despair of the child, and was very uneasy on the mother's account. I desired therefore that another of the profession might be called in before any step was taken respecting the delivery. Accordingly Dr. Griffiths (who had delivered her before with the crotchet after opening the head) was sent for, and came about eight o'clock in the evening. The Doctor having acquainted himself with the situation of affairs, and considering that as the child's head was so high up, no attempts could be made with the crotchet, as in her former labours, the head then being fixed in the pelvis ; that as her children were formerly
large

large and the pelvis small, much difficulty and danger must attend turning; and that our patients condition would not admit of much delay, from which no benefit could be expected; and as her pains were now quite gone, and succeeded by a great faintness, the case appeared extremely unhappy and dangerous. However as something must be done, we concluded to turn, if possible, and deliver footling, and this we were the more encouraged to do, as the Doctor upon examining the abdomen felt two distinct substances, which he said he was in hopes were two children, and consequently smaller than if only one. I therefore, as she laid on her left side, introduced my left hand on account of her belly being rather pendulous, and as the face of the child was to the right ileum, I passed my hand over it, and along its belly till I reached both the feet, and this I did without feeling that stricture which the uterus generally causes upon the hand, when the waters have been for some hours evacuated; instead of which, I met with some little embarrassment, from my fingers being entangled with a loose floating substance, which however, I did not
much

much attend to at that time. I told the Doctor that I felt that body (as my hand passed along) which he hoped was another child, but which to the touch did not seem to be so. I felt likewise a stronger pulsation at the vertebræ lumborum than I had ever observed in any such delivery. But though I brought the feet down to the os externum without much difficulty, yet it was not without many efforts both from the Doctor as well as myself, with change of posture several times, that we delivered as far as the nates. And though we now and then ceased operating, and supplied our patient with frequent supplings of wine and water, yet she sunk surprisingly, grew insensible, clammy, and died about ten o'clock the same evening, at a time when we were in great hopes of completing the delivery.

The next morning I was desired to come and open the body, in order to take away the child. Upon making my incisions in the usual manner, a large quantity of blood flowed off, and the first part that presented itself immediately under the peritonæum was
the

the uterus, whose fundus reached to within about a hands breadth of the navel, and whose size was that of a man's two fists. On examining its surface, I perceived a laceration towards the sacrum from the os internum, to more than half way to the fundus. Under the uterus laid the child's head and shoulders, with it's face to the left ileum, one arm over the pubis, and the other at the sacrum. I then took out the child from the situation in which we had left it the preceding night, which was of a monstrous size, of a livid colour, and with the cuticle in many places peeling off. I next drew out the placenta which was quite loose in the abdomen, detached from the uterus.

From these appearances, joined to the circumstances of the labour, we were clear that the laceration of the uterus was begun before the membranes broke, and increased by the pains, till the child with the placenta, was entirely excluded into the cavity of the abdomen.

A R T I C L E XIII.

Case of Vomiting in Pregnancy, successfully treated, in a letter from W. VAUGHAN, M. D. and C. M. S. Leicester, to J. C. LETTSOM, M. D. &c.

Read October 22, 1787.

IT is an observation, if I mistake not, made by the candid and sagacious Sydenham, that the man who could discover certain means of curing so trifling a disease as a corn, would deserve well of the public. Indeed, whatever contributes to diminish or alleviate the calamities of life, has its value; for pain, notwithstanding the pride of philosophy, is an evil; and an evil which will compel the sufferer to seek means of relief; not only our profession then, but the community at large, is under obligations to the individual, who multiplies the means of obviating, or mitigating pain, when it occurs. The disease
which

which I intend to make the subject of this paper is a very common and a very troublesome one. And, though probably coeval with human nature, has never, so far as I have observed, or could learn from inquiry, found an adequate remedy; I mean the sickness and vomiting, which accompanies early pregnancy. The physician who could point out an effectual remedy for these troublesome symptoms, would I am sure deserve, and I dare say, would obtain the best and most grateful thanks, of the amiable part of our species at least. I am not so fortunate as to possess any secret of this kind, and therefore the reader will not expect it from me, but I will relate to him a case wherein nausea and vomiting, as attendants on pregnancy, occurred in a much greater degree than usual, where these symptoms lasted much longer, and when the consequences were of the most serious kind: he shall also be informed of the means which I employed to obviate them, and which soon proved effectual; if by this information he may profit, I shall attain the end I have in view.

A lady

A lady of a very delicate frame, with dark hair, much subject to nervous affections, found herself in the 31st year for the second time pregnant. The nausea and vomiting, which in that state so frequently occur in a morning, in this instance tormented her not only in a morning, but during a greater part of the day; and although she was now entered upon her seventh month, these were in no respect abated; notwithstanding she had employed a variety of remedies, which had been recommended to her. It was in this state of the lady's pregnancy, that I was first called to see her. I found her much emaciated, melting away under profuse sweats (the weather was very warm) whilst in bed; to which a reduction of her strength confined her almost altogether. If she attempted to sit up, she was immediately fainting, and if she was disposed to sleep, she was persecuted with such horrid dreams, that it was her earnest request to her attendants to wake her as often as they found her asleep. During this time the quantity of food taken in 24 hours was inconsiderable indeed; and though inconsiderable, was immediately rejected; the appetite

tite was allowed to point at any kind of food however singular (and sometimes, we know, in this case singular enough it is) which it was my intention she should be indulged with; but this was in vain, once or twice a very small bit of broiled bacon was swallowed, and staid longer than any thing, but the quantity was too trifling to admit an expectation that her exhausted frame could derive support from this; the most insipid, as well as the most poignant food was placed before her, but without exciting an inclination on her part to partake of them. We did not succeed any better by placing a variety of fruits in the same situation; if any was swallowed it was immediately rejected. At times she found herself much annoyed by a large quantity of wind being confined in her stomach and bowels; by the importunity of her friends, she was now and then prevailed upon to take a small spoonful of burnt brandy for this last complaint, which generally gave her relief; her thirst and heat were inconsiderable, her pulse beat under one hundred strokes in a minute. Under all these miserable circumstances there were no appearances of a miscarriage;

carriage;

carriage ; on the other hand the child gave the most active signs of being alive and well. The profuse sweating, with the terrible dreams were not of more than ten days standing ; but the vomiting had commenced at the earliest period, and instead of any abatement it had manifestly increased to the pitch it was now arrived at. Her apothecary had administered anti-emetics of the most established character, and had been careful to prevent any accumulation of fæces in the intestinal tube, by the occasional interposition of clysters, but without gaining the least positive advantage. In this emaciated state, worn down with sleepless nights, exhausted by profuse sweats, terrified with horrid dreams, and teized with perpetual vomiting, I found this poor lady, and I will freely confess was much puzzled to form a plan of treatment, which should satisfy myself, and prove of use to her. Indeed I had no expectation that medicine was more likely to remain on the stomach than food and opium. Fixed air, with other anti-emetics, had been already tried, but in vain. It struck me that the first point to gain was that of enabling the stomach to receive and

retain food; for if this could be done, I had no doubt but her other symptoms would gradually diminish; the difficulty, however, appeared to be great. I was willing to hope that much of this complicated evil was founded on habit, and on this ground I took my stand. I at length determined to begin with abandoning every attempt to convey nourishment into the stomach by the mouth. It was my direction, that she should not on any account eat or drink, or at least not swallow any part, either of fluids or solids. But although I gave up this avenue, in order to allow the stomach to remain in a state of quietude, unsolicited by stimulus of any kind, except its natural contents; yet I did not mean to leave the system unsupported, but on the contrary to support it, by a mild nourishment thrown in by the intestinal tube, and by the inhalents of the skin. The lower bowels were first emptied, by a clyster of mutton broth; this being accomplished, a pint of new milk just taken from the cow, with 20 drops of laudanum, was ordered to be injected as a clyster, morning and evening, and every endeavour to retain it was to be employed.

employed. Four ounces of bark were directed to be boiled, in three gallons of skimmed milk, and the feet and legs being first well rubbed with a warm cloth, were to be immersed in this warm pediluvium for an hour, three or four times a day; an anodyne liniment was also applied to the region of the stomach; this comprehended the whole of the medical treatment she was then submitted to; this method was pursued steadfastly for three days with manifest advantage, the milk was entirely absorbed morning and evening, her sweats were considerably diminished, she had gained some strength, and had been refreshed, with four hours sleep the last night, without being haunted with those terrifying dreams which had been the cause of so much distress. On the fourth day, from her beginning upon this plan, she enquired of the servant, if there was any cold meat in the house, expressing a wish to have some brought to her; a plate full of cold boiled beef was immediately produced, which she eat with great pleasure, and drank with it a pint of small beer, this never gave her the least annoy-

ance, she continued from that time to take her food well, went her full time, and was brought to bed of a healthy child, which is now living. A light infusion of the bark, after this, was ordered for her, with a gentle aperient occasionally, and this was all that was wanting.

Every body conversant with the animal œconomy, knows how easily a habit is formed, and how much the system is influenced by it; the reader however shall determine for himself; the fact as I have related it, is not less a fact, although I may have failed in the explanation of it.

A R T I C L E XIV.

On the Use of Cantharides in Dropsical Complaints, by SAM. FARR, M. D. and C. M. S. Curry Revel; in a letter to J. C. LETTSOM, M. D. &c.

Read June 23, 1788.

THE discovery of new medicines seems to have occupied the principal attention of physicians of the present age; and as there

there are so many desiderata still required in practice, they are entitled to the thanks of the public for their exertions. At the same time, perhaps, the effects of some old medicines of established reputation may not be undeserving of regard. Amongst these it appears to me that Cantharides, though a college medicine, hath not been sufficiently exhibited, to know precisely its effects in all the disorders where it bids fair to be of service.

It is certainly possessed of very powerful qualities, and is endued with a high degree of stimulus; but from improper use, or from fear of danger, it hath met with many enemies, both amongst those who are fond of controversy, and others who wish not to offend by doing too much, or encountering any particular difficulties. I would wish to induce a greater attention than hath been paid to it, in a disorder generally condemned as incurable, especially in its last stages. The dropsy, particularly that kind of it where water is supposed to be lodged in the thorax, hath eluded almost all the efforts of physic.

But the cantharides seems to be a medicine which is peculiarly adapted to this complaint, as it hath been frequently used in all sorts of dropfies. It has a powerful effect in stimulating the lungs and the urinary passages. In the former, it seems in this disorder to promote an absorption in that juncture devoted to respiration, and in the latter it carries off that super-abundant quantity of water which abounds in the system. A true diuretic hath hardly yet been discovered, cantharides seems to be the most powerful of any other, and it hath this advantage, that it doth not debilitate either the parts upon which it produces its effect, or the constitution in general. It seems rather to act as a cordial and strengthener. Its effects likewise as a stimulus, if too violent, may be sheathed by other medicines, which may co-operate with it in the general intention.

From these considerations I have been often induced to use it in dropfical cases, especially in old people, where I apprehended its stimulating effects would not be so active as in younger subjects. And I have generally
found

found it attended with the most beneficial effects. If it hath not made a radical cure of the disease, it hath discharged the water, freed the respiration from its troublesome dyspnæa, and given a temporary relief to the whole body. But this disease is so apt to return, that little hopes can be derived from this or any other medicine to produce a permanent effect. A truce, however, is sometimes of very great consequence, and we may expect as much from this as any other remedy, in effecting a perfect cure.

As I have not taken any minutes of particular cases, I cannot give so accurate an account of the use I have made of the cantharides as I could wish. But two instances occur to my memory, in which a proper effect was produced, and in one of them a perfect cure was made. The first was of an old gentleman of near fourscore years of age, who had been afflicted for many years with a humoural asthma, attended with a sciatica, which had resisted Bath water and many other remedies. From want of exercise he fell into a dropical complaint, and
when

when I saw him, his legs and thighs were much tumified, and his breathing was very short and laborious, but there was no appearance of ascites. He was ordered a draught, containing twenty drops of tinct. canthar. with a dram of sal. diuret. and some lac. ammon. to be taken every four or six hours, and I believe an occasional paregoric. After a few days he began to make water freely, and continued in that manner till he was quite well of his dropfy, which was not in many weeks. His asthmatic symptoms were likewise much relieved, and he has been now for five years free from any other complaint, but that and a little of the sciatica, at times.

The other case was likewise of an old man about seventy years of age, a free liver, and a great drinker of cyder. He had a very troublesome cough, his breathing was intolerably short, his body swelled, with every appearance of ascites, and his scrotum and penis enlarged to an amazing size: his legs too were ready to burst, and he made very little water. He was ordered a draught with
lac.

lac. ammon, a drachm of elix. paregor. and fifteen drops of tinct. canthar. to be taken every four hours, after the operation of a purge, composed of a scruple of jalap and ten grains of calom. In a few days he perceived a sensible relief, his water was gradually evacuated, so that he was quite emptied in the course of about a week, and in another he was able to ride about and do his business. Unfortunately, however, in this case, whether from drinking or exposure to cold is not perfectly known, but his dropsy returned, yet not so violently as before, tho' his breathing was shorter, his cough more troublesome, and his appetite failed him. He had recourse to the same mode of cure, increasing the cantharides to 25 drops, and a second time received relief. This was about a month since. This is the practice which I have frequently followed, and found most likely to give relief in this disease; in younger and hearty subjects I have experienced great service from strong purgatives, such as jalap, with, tart. emet. &c. but the cantharides as a diuretic seems to be the safest we know, in cases where such a medicine is wanted. I
have

have generally found it best to guard it with opium, which in the form of elix. paregor. will assist it likewise in relieving the respiration. The dose, in which I have administered it, is rather small; but then I have frequently repeated it, and have found it generally sufficient. Should a larger be required it will be easy to increase it. But I think it safest, with all very active medicines, to begin with small doses, as an error in such case is more easily corrected than when too great a quantity is administered.

A R T I C L E X V.

Case of Tetanus treated by Electricity, by JOHN HUTCHISSON, M. D. of DUBLIN. Communicated by JAMES SIMS, M. D. &c.

Read January 29, 1779.

THE following narrative is the case of Miss Margaret Caddel, a young woman about sixteen years old, the daughter of Mr. Hugh

Hugh

Hugh Caddel, jeweller, who having her jaws locked for above seven months, had their use restored by electricity.

In the month of November, 1774, Miss Caddel was attacked with lumps in her throat, the symptoms, were so alarming that Dr. Arch. Hamilton was applied to for his assistance, who found it necessary to prescribe blisters, which in some measure relieved the patient. But about the latter end of that month, she having gone to sleep, without any other complaint than the above mentioned; on awaking in the morning, found her jaws contracted together, and so immoveably fixt, as to baffle every attempt to relieve her.

Thus she continued until the beginning of March, 1775, when, being in a very weak state, and in much pain, just after her blisters were dressed, her whole frame was convulsed, and the teeth of the lower jaw slipped up behind those of the upper, which lapped over so entirely as to hide the lower teeth

teeth from view, which until then were only closed tooth against tooth.

In the beginning of June 1775, her parents were pressed by some of their friends (not medical) to try what effect electricity would have. Her father consulted some physical gentlemen, whether he might hope for success from that operation; their answers were doubtful. But, not to leave any means untried for her relief, she was brought to the house of a Mr. Bond, in Castle Street, who hath a very good electrical machine, at which place I had the first opportunity of seeing her, or to know any thing of her case; and at that time her lower teeth appeared covered by the upper, as mentioned above.

In the week between the 26th of June and 2d of July, she was electrified on two different days, with little effect, as the shocks were weak, the machine not working with much force, by the unfavourableness of the weather.

On Wednesday the 5th of July, she received two smart shocks, after which she
thought

thought her jaws were not quite so contracted, and on inspection, I could perceive part of the lower teeth.

The next morning I waited on Dr. Hamilton (with whom I have the pleasure to be acquainted) and informed him of what I had observed, who advised us to proceed with our trials.

On that day, the 6th of July, in the afternoon, we gave her two shocks, the wire being placed at the articulation of the jaw on each side, the last of which was so powerful as almost to make her faint. As I had my eye directed to her teeth, I perceived that they were separated, and informed her; she tried with her finger, and found a passage between. Her surprise and joy were so great at this discovery, that she did not attend to her being able to use her jaw, until that pleasure had subsided; and in half an hour after she eat part of a small cake, and drank part of a glass of wine.

On the succeeding day she was visited by Dr. Quin, who had seen her in the state of her
locked

locked jaw, and by Doctor Hamilton, who had attended her occasionally, they were both equally and agreeably surpris'd at the unexpected success. Doctor Hamilton told me that such a case ought to be recorded, and as I had attended and assist'd in the operation, requested I would collect the particulars, and to convey them to you, for the consideration of the Medical Society, of which, you are one of the Secretaries. This I have done with the greater pleasure, as it may add something to medical knowledge.

And am, Sir,

your humble Servant,

JOHN HUTCHISSON.

N. 45, High-street, Dublin,
18th Aug. 1778.

P. S. The above narrative, would have been sent to you sooner, but was delayed until now, to see whether Miss Caddel would have any return. It is now above one month since the operation, and she hath not had the least symptom; but can chew almost as well as ever, and is recovering her strength and appetite, both of which were much impaired.

To the Secretary of the Medical Society.

SIR,

Your favour of the 11th instant, brought a request to be informed in what manner Miss Caddel was nourished during the long period of the locked jaw. When I inspected my memorandum, I was much surpris'd that I did not mention it, in the account sent to your society, but suppose it was that I did not choose to be too tedious.

By the best information I have been able to obtain, her support was with broth, jelly, and such other liquids, which she with much difficulty sucked in through the interstices of her teeth, and in the same manner all the medicines were administered to her; by this method the lamp of life was but just preserved from going out. Her father told me, that more than once her weakness was so great, that they apprehended her to be dying. But as the original malady decreased, her abilities of suction grew greater, and her desire of life made her exert herself to take the necessaries

necessaries for its support; so that when I first saw her, she was a good deal emaciated, but could walk and dress herself.

For some time after her being cured, she did not eat any flesh meat, being so long without tasting it, she had not any desire to do so; but by degrees she hath brought herself to eat that and every other food.

Another great advantage she received from electricity was, that the menses began to flow regularly, which were before intirely suppressed; which obstruction it is apprehended was the cause of frequent sore throats, which she was before much subject to, and hath continued ever since in health, free from the least symptoms of either complaints.

I esteem myself happy in having an opportunity of communicating any thing useful to your society, and shall, as often as I have any thing new, do myself the honour of imparting whatever may be either curious or interesting.

JOHN HUTCHISSON.

ARTICLE

ARTICLE XVI.

Of the Digitalis Purpurea, in hydropic diseases,
by J. C. LETTSOM, M. D. &c.

Read February 4, 1788.

DISSECTIONS of morbid cases* sufficiently evince the impracticability of curing dropfies, arising from certain causes, as polypii or ossifications in the large vessels, heart and lungs, or scirrhoties formed in them; or in the liver and spleen; steatomatous tumors in different parts of the abdomen, compressing the vena cava; a rupture or permanent obstruction of the lymphatics; suppurations in the viscera; a strumous mesentery, and

* Compare Lieutaud, *Historia Anatomica Medica*, vol. ii. p. 408. Morgagni de causis et sedibus morborum, under Hydrops, et ventris tumor. Boneti Sepulch. Anat. tom. ii. p. 448, et passim. Van Swieten de Hydrope, with the writings of Bianchi, Schenckius, De Haen, du Verney, Monro, Hewson, Storck, Milman, &c.

similar fixed morbid affections; which, being incurable themselves, render the disease they produce, rebellious to every effort of medicine.

But in order to ascertain the virtues, which a medicine may really possess, in an equal or superior degree, to any other previously known, in the treatment of dropsies, trial should be made in such cases, as experience may have deemed remediable.

The following instances which a priori appeared not to be incurable, are related in the order and succession in which they occurred in practice, and copied verbatim from the notes which I committed to writing at the periods of attendance.

C A S E I.

R. GILL, thirty years of age, applied to me about the beginning of September 1785. He had experienced uneasiness in the region
of

of the stomach, for about six months, with a gradual loss of appetite; and when he did take any nourishment, it was succeeded with a sense of oppression and load in this viscus, and a nausea, sometimes encreasing to vomiting.

Under these circumstances, without having suffered much loss of flesh, or considerably in strength, he applied to me; he had a fallow complexion, and a fulness of the abdomen, which induced me to conclude that he now had an incipient ascites; he had no great degree of cough or dyspnæa. I had reason to think he had indulged himself in the too free use of spirits, as well as of strong malt liquors. On the 15th of September I prescribed the following:

R. *Olei Amygdal. dulc. uncias quatuor,*
Camphoræ, drachmas duas cum semisse, misce,
fiat Linimentum, quocum inungatur abdomen
per horam quotidie.

R. *Fol. Digitalis Purpureæ, sicc. semi-drachmam,*
coque ex Aquæ unc. vij. ad unc. vj. cola et
colaturæ adde

Tincturæ Stomach.

*Syr. Balsamic. sing. drachmas duas, misce, cap.
Cochleare ter de die gradatim augendo dosin,
donec nausea excitetur.*

The dose was tripled, before it produced any sensible effect; when nausea came on, and some slight vomiting at the end of four days; but as the latter subsided, this dose was continued for the space of six days longer, without having produced one salutary symptom. About the time the sickness came on, he began to complain of giddiness of the head, and confused vision; objects appearing as if enveloped in a red blaze of fire. I was much surprized to find in this case, that although no secretion was sensibly augmented, the fulness of the abdomen subsided, and the dropsy seemed totally removed; but during the use of the medicine, the patient's strength sunk in a degree, never before experienced; and such jaçtitation and restlessness ensued, as compelled me to relinquish this vegetable, after it had been persevered in for the space of ten days.

The

The confusion of the head, and perverted vision, nevertheless continued, with the restlessness and jactitation, which evinced great uneasiness in the system, though the patient did not appear sensible of any particular pain. The prostration of strength could not be surmounted by the use of cordials, and the whole train of unpleasent symptoms only subsided with his death, which happened a week after the digitalis purpurea was relinquished.

C A S E II.

EDWARD WYCHERLY, 48 years of age, whose chief employment is to attend at the river side near the Custom-house, first observed a want of appetite, and a disposition to sickness in the spring of 1785, but he did not make any application for medical relief till the first of November, when he consulted me; his legs were then moderately swelled; there was rather more fulness about the region of the liver, than natural, but no

great forenefs upon the touch, or from pref-
fure in that part; there appeared alfo, a ten-
fion of the abdomen, but though I fufpected
water, I could not ascertain any fluctuation
of it. I ftrictly enquired into his mode of
living, and found that he had occasionally
drank brandy and water, and fometimes a
glafs of fpirits unmixed, but not frequently,
nor had he been in any other refpect intem-
perate.

I prefcribed of calomel one grain every
night for a week, and a decoction of tarax-
icum, with polychrefl falt, twice a day; thefe
he continued for a week, when I ordered a
decoction of the digitalis purpurea three
times a day, gradually encreasing the dofe,
till a naufea enfued; and then diminifhing it,
fo as juft to admit of retention on the flo-
mach.

On the 21ft of November I faw him again,
his urine had not been fenfibly encreafed,
though his legs appeared much lefs fwelled,
which gave him encouragement to perfevere
in the ufe of the medicine; but on examin-
ing

ing the abdomen, I discovered an obvious fluctuation of the contained fluid; and the face began to wear a diseased fallow look, though he still continued to follow his usual employments.

He was, however, so prejudiced in favour of this vegetable, that he seemed desirous of continuing it longer, for he had now taken it only twelve days; he observed, however, that since he took it he found a dimness, and diminution of his sight, with a slight vertigo. I ordered the decoction twice a day, and two of the following pills to be taken every night.

R. *Pulv. Fol. Digital. Purp.* ℥ss.

— *Rad. Columbæ* ℥ss.

Confect. Cardiacæ, q. s. f. Pilulæ xx.

This plan he continued till the end of November, when I found a considerable tumescence of the abdomen, and a more obvious fluctuation of water in its cavity. The nausea and occasional vomiting from the digitalis had weakened him so much, that I did not wish to try it any longer.

The dimness of sight, and vertigo, continued about fourteen days after leaving off this vegetable, the recovery was very gradual, as well as the vertigo; but there is no prospect of obviating the fatal tendency of the ascites.

P. S. Two months after writing the above, I heard of his death.

C A S E III.

JAMES OGDEN, aged about 54 years, had been a publican, in which, though he never was intoxicated, there is reason to think he drank freely. He enjoyed, however, good health, and had adopted a new line of business for some time before he applied to me. Ever since the commencement of the year 1785, he had perceived a diminution of appetite and bodily strength; the urine became high coloured, and lessened in quantity, and the belly enlarged. When I saw him on the third of October, there was an evident ascites, though no præternatural enlargement

largement of the liver was perceptible; and he was still able to attend to his concerns.

I then ordered him to take the decoction of the digitalis in the form prescribed in the preceding case,

On the 9th, no alteration had ensued, when I repeated the decoction, and ordered the following pills.

R. *Digitalis purpur. pulv.* ℥j.

Philon. Londin. ℥ij. m. fiat *Pilul. xviiij. cap. i.*
omn. nocte et mane.

On the 12th, a considerable degree of vomiting ensued, and the unfavourable symptoms were augmented; he was much weaker, without any diminution of the abdomen, or increased quantity of urine, he complained of giddiness and confusion of the head, and was reduced to the necessity of keeping his bed for several days; by the use, however, of a decoction of bark, he gradually acquired sufficient strength to sit up a few hours of the day. But this relief was not permanent, and he sunk under the debility about fifteen days after taking the digitalis.

CASE

C A S E IV.

MARY GUEST, about 40 years of age, of great temperance, but of assiduity in the business of her house, which was often continued so as greatly to fatigue her, observed in the autumn of 1785, a gradual encrease of bulk, and particularly a swelling of the lower extremities, with a diminution of urine; though the menses continued as in her usual health.

On the 7th of November she consulted me, and I then prescribed an infusion of quassia with squills.

On the 14th, she had passed a larger proportion of urine, and the general anasarca was diminished.

On the 19th, when I saw her, no further advantage had been gained, which induced me to exhibit the digitalis purpurea, thus,

R. *Decoct. Digitalis purp.* ℥iſs.

Tinct. Stomach.

Syr. Balsamic. a. ʒj. *f. Haust. bis in die sumendus.*

It

It mostly produced some little nausea, and lessened the inclination for food, but it did not in the least perceptibly encrease the urine: she indeed complained of being weaker, and more bloated; and instead of the digitalis, I gave larger doses of squills, with bark to strengthen the habit, which plan gradually restored her health.

C A S E V.

W. WEBB, sixty years of age, applied to me on the 20th of February 1786, on account of some difficulty of breathing, and a slight anasarca of the legs. He had been liable during many preceding winters to this kind of dyspnæa, and had generally been relieved by losing a little blood; this year the same treatment did not produce any beneficial effect; the pulse was not irregular, but weak; he could lie down with ease in any position of the body, though upon exercise the breathing was short and oppressed without much catarrh.

I ordered

I ordered squills in substance, and the acetum scilliticum as freely as his stomach would bear; but as he tried these without any mitigation of his complaints, the following were exhibited on the 27th of February.

R. *Pulv. Doveri* ℥ss.

—— *Rhabarb.*

—— *Scillar. siccar. a.* ℥ss.

Syr. e Meconio, q. s. f. pilul. xij. cap. iij. omni nocte.

R. *Fol. Digital. Purpur.* ℥ss.

Coque ex Aquæ ℥viiij. ad ℥vj. colaturæ, et adde Tinct. Stomach. ℥ss.

Syr. ex Althæa ℥ij. m. cap. cochlear. ij. ter per diem.

This dose excited a little nausea, but not to such a degree as to prevent its continuance for eight days; at the end of this time he became so weak, that I was necessitated to interdict its further exhibition; the head became so giddy as to give a sense of drunkenness; the urine was not augmented, and the anasarca, and debility were encreased.

The Peruvian bark, with squills, was now introduced, and continued to the end of March, at which time this was written, and though no obvious encrease of urine supervened, the strength improved, the tumescence of the legs somewhat diminished, and the breathing was less difficult, so as to give hopes of a gradual recovery.

C A S E VI.

J. POYNER, aged about 46 years, applied to me on account of an anasarca, which had become general, attended with such a degree of dyspnœa as prevented his lying down in bed, for some weeks before my attendance. The disease, however, had been gradually coming on, for several months before it arrived at such an extent, as to induce him to request my attendance.

I could find no cause of intemperance to which the complaint could be charged. He had formerly known better days, and had lately encountered encreasing difficulties, but was nevertheless superior to a state of want.

With

With the anasarca, the urine was diminished in quantity, and heightened in colour; he had a troublesome cough, and particularly upon attempting a reclined position. I did not observe an ascites, he had a pretty free expectoration with his cough.

On the 8th of December 1785, I first prescribed for him a mixture, with lac ammoniacum, acetum scilliticum, and the volatile alcali, to take in the day-time.

At bed-time he took pills compounded of powdered squills, Dover's powder, and Rufus's pill.

December 13. Having found no relief from the first remedies, besides continuing the pills, the mixture was repeated, with a decoction of Seneka root, instead of the lac ammoniacum.

Dec. 19. No amendment yet resulting from the use of the medicines, I ordered the patient to take an infusion of tobacco, three times a day, with the mixture at intermediate times.

Jan.

Jan. 1, 1786. Soon after the use of the nicotiana, he appeared freer in his breath, and imagined that the quantity of urine was encreased; but the flattering appearances again subsided; I continued, however, the medicine occasionally, as the stomach would bear it, till January 10, when I ordered the usual decoction of the fox-glove, but rather in a diminished dose, to be taken every eight hours, encreasing it as the stomach would admit.

For the first week he certainly passed much more water, and gradually diminished in the anasarcaous swelling.

I was extremely happy at the prospect I now had, of seeing one successful case from the use of this vegetable, and though he complained of great vertigo, and almost a total loss of vision, with immense prostration of strength, I encouraged him to persevere; but on the second week he lost ground; the urine did not encrease, but the anasarca, the debility and vertigo augmented, and I was reluctantly compelled to relinquish the medicine on the 28th of February, when I ordered
a decoction

a decoction of bark, with acetum scilliticum, and salt of wormwood; besides which, he took every night, pills made of rhubarb, soap, and squills.

Towards the end of April, he acquired a tolerable state of health, and has since attended to his usual concerns; but it was full two months after leaving off the digitalis, before his vision clearly returned, or the vertigo ceased.

About the beginning of January, agreeable to the observation under that month, when the symptoms were relieved at the first taking of the digitalis, I was so hopeful of its efficacy, that I tried this vegetable in three other cases about the same period, but met with chagrin and disappointment, although the instances were such, as might have admitted of succour.

P. S. Though my visits were discontinued, I have since learnt, that the patient Poynder died suddenly in bed, in September 1786; and I imagine that he then laboured under the hydrops pectoris.

C A S E VII.

THO. WRIGHT, aged about 46, consulted me on the 5th of September 1787, when I collected the following information.

He has lived all his life in such a state of temperance as rarely to have been intoxicated, but he has been accustomed to drink brandy and water, or gin and water, as a frequent liquor, from which, however, no inconvenience resulted till about two years ago, when his appetite began to fail, and an uneasy fullness about the region of the stomach ensued. Early in the year 1786, the urine appeared to be diminished, and a slight anasarcaous tumescence of the whole body took place, and in the summer, a jaundice with an increased anasarca. Dr. Brocklesby was consulted, and prescribed various remedies, which were so far efficacious as to remove the jaundice in a great measure; and punctures in the legs had lessened the anasarca. I believe he consulted some other physicians, but without experiencing further relief.

At the period of my visit, accompanied by Dr. Andree, a member of the Medical Society, I observed the following state of the patient's disease.

His whole body was considerably anasar-
cous, his complexion had a slight yellow
tinge, and the eyes indicated the remains or
the return of the jaundice; the small lobe of
the liver might be felt, somewhat enlarged
and indurated; a fluctuation of water in the
abdomen was evident; the breathing was
often laborious, some rest he enjoyed at
night, and he could recline upon a low pillow;
the urine was small in quantity, though not
very high coloured. With these symptoms, he
had never totally confined himself from go-
ing abroad, either in a carriage, or a little on
foot. His alvine evacuations were natural,
his tongue clean, and his spirits not depressed.

Preceding physicians had judiciously admi-
nistered neutral salts, squills, and other diu-
retics. Once calomel was attempted, but a
single grain affected his mouth.

He

He had lately drank gin and water, as a medicine of his own, from an idea that old hock, and other wines, recommended by the faculty, disagreed with him, by turning sour on his stomach. I requested him to lessen his gin, and in lieu of water, to dilute it with an infusion of the juniper shrub. As he had taken various diuretic medicines, I was resolved to try the *digitalis purpurea* in the smallest doses at first, to avoid exciting a nausea, to which he was already liable.

R. *Pulv. Fol. Digitalis Purpur. sicc.* ʒʒ.

Spec. Aromat. ʒj.

*Conf. Cardiac. q. s. fiant Pilul. xiv. cap. unam
ter per diem.*

Sept. 12. There had been a considerable increase of urine, which the Doctor informed me had occasionally occurred before, without any permanent benefit, he appeared to have lost two inches in the dimensions of his waist, and he said he felt stronger. He was able to walk about the room; the pills produced a nausea, but no vomiting, and they were continued. I now found that he had frequently drank brandy

and water, and even indulged in it since my last visit, which custom I totally discountenanced.

Sept. 19. The urine is again diminished, although on the 16th the digitalis purpurea was encreased, the appetite is fallen off. I ordered the following:

R. *Extract. Cicutæ, gr. iiss.*
 Pulv. Digital. purp.
 — *Scillar. succ. ā. gr j. f. Pilul. ter in die*
 sumunda.

At the end of September, I was informed that the patient continued much in the situation he had done for the last twelve months; and probably from the remaining strength of a vigorous constitution, he may survive many months longer.

P. S. Though I never attended after the above report, which I copied from my notes, I heard that he died about four months after I left him.

C A S E VIII.

E. G. of Lombard Street, of a temperate course of life, and of a general good state of health, began about her 45th year to experience some irregularity in the menses, and a disposition to obesity; this had been encreased by confinement in consequence of an accident; but she afterwards enjoyed health, though with less exercise.

About the year 1787, she perceived an encreased fulness of the abdomen, for which she consulted her apothecary, W. French, who gave chiefly scillitic medicines, and occasional laxatives of calomel, with the cathartic extract; she made more urine, and by measurement fell two inches in the circumference in the waist; this relief was temporary, and she acquired her former magnitude, when I was consulted about the middle of July.

This lady enjoyed a florid complexion, plump without being gross in habit, but the abdomen was considerably enlarged, and a fluctuation

fluctuation of water was just perceptible, there was no evident enlargement about the region of the liver, nor could that viscus be perceived by the touch from the obesity, and partial anasarca; the menses had appeared lately, though in diminished quantity; the urine was high coloured, and but little was discharged.

As calomel had been lately given, I did not repeat it, but ordered the squills both in substance, and in the form of acetum with salt of wormwood, as liberally as the stomach would bear, and occasionally administered the cathartic extract as a purgative.

This plan was pursued with little variation till the 10th of August, without any obvious improvement; this induced me to relinquish the squills, and substitute the digitalis purpurea, which could now be procured without risk of deception.

To avoid exciting nausea, half a grain only was prescribed to be taken three times a day in pill, with as much cathartic extract as would
procure

procure two stools each day, and the pills were washed down with a saline draught, with directions to encrease the digitalis purpurea gradually, as far as the stomach would bear without vomiting.

August 18. The patient had now arrived to the quantity of four grains and an half each day, of the digitalis dried, without suffering more nausea than she had done with the squills, and indeed the appetite had never been very bad. But no encrease of urine or diminution of size had resulted from the medicine. As I thought I had experienced more diuretic effects from the combinations of these two vegetables, than from either singly, I continued the pills, and added to each draught ten drops of the acetum scilliticum.

Aug. 23. She complained much of sickness, no encrease of urine, feels a sense of encreased debility; at present the menses are in considerable quantity, a discharge which has of late attended at frequent and uncertain periods. The complexion is clear, and maintains

tains an healthy look, but the belly augments and the appetite fails. As the medicines produce no good effect they are now omitted, and a restraining draught substituted twice a day.

Aug. 26. The menses are a little abated, and the patient's appetite improved; the urine is not encreased in quantity.

Sep. 2. The menses are totally stopt, and the strength a little improved, as well as the appetite, and I now advised her to refrain from medicine.

P. S. In the Midsummer of 1788, this lady was tapped, and died about one month after the operation.

I have communicated the preceding cases, treated with the digitalis purpurea, because they were such, as has been already observed, as afforded a prospect of successful issue, though the result did not confirm it. The apothecaries who attended the patients, particularly

ticularly J. Parkinson of Hoxton Square, who visited the Cafe No. I. and J. Steele of Tower Hill, who attended that of No. II. and who were equally anxious with myself to ascertain the real digitalis, took particular care to examine this vegetable, and superintend its effects.

I have given it also to hydropic patients much further advanced in the symptoms of danger usually accompanying this disease; or whose irregular living had afforded little or no prospect of relief; but I have omitted the relation of them, as the failure of success cannot afford any material objection to a medicine, wherein no other could be administered with any probability of advantage; the preceding cases, however, with as many other similar ones, and equally unsuccessful, which have fallen under my care, have induced me to doubt the salutary powers of this beautiful vegetable.

As I gave it in the manner prescribed by Dr. Withering, I am at a loss to explain the different results of our experiments. In the
cases

cases wherein I have tried it, little or no advantage was procured, while his trials were almost as uniformly successful, and many of them appear to have been much more unpromising. The accuracy of his observations, the candour with which they are published, and above all, the known respectability of his character, place him above the reach of suspicion. I have not only had the correspondence of Dr. Withering himself, but other respectable physicians in the country, have favoured me with accounts of its success, in instances where no improper bias whatever could influence their relations. Future experiment therefore must decide from what unknown causes such different effects have arisen.

There are certainly diseases of the same origin and nature which require different treatment in different situations and periods. The practice adopted by Dr. Sydenham in the rheumatism would not suit the constitutions of the present citizens of London; and the treatment of the same recommended by Dr. Cullen, in Edinburgh, would be injurious to
the

the patients of this metropolis. How far a more robust habit of the people in the country, may render the digitalis purpurea a more salutary remedy in the dropsy than it proves to the inhabitants of London, I cannot ascertain; but no liberal mind would impeach the accuracy and fidelity of those writers who have spoken so highly of this vegetable. A considerable argument in its favour has been deduced from the testimonies of old writers; but does not this militate against it? for had this medicine been generally successful formerly, it never would have been relinquished, unless some more successful remedy had superseded it; but as this has not been the case, as no medicine has been found to cure dropsies in general, it may be naturally inferred that the digitalis could not have fallen into disuse from its virtues, but from its inefficacy, if not from its real injuries. My doubts have not been hastily adopted. The digitalis was recommended to me for trial about ten years ago, and its failure in two instances discouraged me from prosecuting further experiment at that time.

I have

I have lately conversed with many practitioners in London upon the subject, and they have very generally met with disappointment from this remedy. A physician of distinguished eminence informs me, that from the successful exhibition of it, in a case of dropsy, about 22 years ago, he was induced to give it repeatedly to the patients of the hospital, to which he was then physician, but without one instance of success; and though he continues high in his profession, the late encomiums have never drawn him to repeat his experiments. Some eminent practitioners, however, have confirmed the favourable relations of Dr. Darwin, and Dr. Withering, and assured me of their having experienced the most salutary effects in hydropic affections, particularly in the hydrops pectoris and general anasarca.

In the exhibition of the digitalis purpurea, the first effect I have observed, is rendering the pulse slower than in the natural state of the patient, thus persons whose usual standard may be 70, have had the pulsations reduced to 56, or even less, in a minute; this
has

has occurred within 24 hours after the use of this vegetable; but if the same dose be continued, in a day or two the pulse acquires its usual quickness, or even exceeds it, but at the same time it generally becomes depressed, and a languor is diffused over the whole system; the extremities, the hands particularly, acquire a moist clamminess, and feel cold to the touch. If the dose be increased till nausea or sickness is excited, the strength of the patient is still more weakened, and the slowness of the pulse returns as at the first exhibition of the medicine; the sickness resembles sea-sickness, accompanied with a confused aching and heaviness of the head. The patient at this period remarks that he perceives flashes of fire frequently pass across his eyes, and sometimes balls of fire in the room. An increase of the dose after this produces vomiting, and sometimes purging also: he complains of increased head-ach, or rather of confusion and giddiness; instead of flashes of light, almost all objects he views appear brilliant, and his friends who visit him seem to be surrounded with a blaze of fire; his memory is imperfect, and upon attempting

tempting to walk, he reels and staggers like a person intoxicated. The dose that brings on these effects, gradually produce confused vision, and at length almost total blindness, which I have known to continue in some instances upwards of a month after the medicine had been omitted: During this time he complains in a particular manner of a throbbing pain in the balls of the eyes, and a sense of fulness and enlargement of them, as if the globes had become too big for the sockets, and were grown out of their natural scite. In two cases that I heard of, the limbs, particularly the lower extremities, were seized with tremors; and from some cause or other both these patients died suddenly, in a manner most resembling apoplexy.

The symptoms I have described do not happen to every patient, even where large doses of the digitalis have been administered: the sense of objects appearing in a blaze of light occurred but in one instance; few, however, escape some degree of the other symptoms; and all experience an alarming prostration of strength; the vital powers are some-
times

times so suddenly and excessively sunk, that life seems almost extinguished, and the slow feeble pulse is but just perceptible; at the same time such horrors of mind and agitation of body ensue, as render the patient under the pressure of these painful sensations, even solicitous of death. In the first case I was a witness of this state of agitation, and although the patient neither vomited, nor suffered a diarrhæa, nor passed more urine than usual, yet the dropical swelling of the abdomen subsided; the debility, however, which succeeded, could never be overcome. Other instances have likewise occurred to me where the ascites has subsided after using this medicine, without any sensible excretion whatever. In general, however, it acts as a powerful diuretic, and in certain states of the dropsy, where the strength is not greatly impaired, has proved successful, so far at least as I can collect from several respectable practitioners; in my own experience I have not been so happy.

Under a knowledge of the probability of such alarming symptoms occasionally occurring

ring, after the exhibition of this active vegetable; the necessity of giving it cautiously must be apparent, as well as of carefully encreasing the dose of it. Probably the diuretic qualities of it cannot be depended on, till a quantity sufficient to produce nausea is introduced, and that quantity is apt to excite unpleasing symptoms.

To assist in obviating the depression which it induces on the powers of life, I have usually added some tonic medicine, as the bark, quassia, chalybeates, or myrrh.

It is by carefully comparing facts that a just criterion of the powers of remedies can be acquired. I have candidly related those which came under my observation, and I submit them to the decisions of time and future experience.

A R T I C L E XVII.

Cynanche Pharyngea, or defect of Deglutition from a straitning of the Œsophagus, by JAMES JOHNSTONE, of Worcester, M. D. and C. M. S. &c. In a letter to J. C. LETTSOM, M. D. &c.

Read June 4, 1787.

LORD BACON, in the work “De Augmentis Scientiarum,” incites physicians to attempt to lessen the number of fatal diseases by new methods. Impediments to the passage of food into the stomach from a stricture, a thickning, or scirrhus of the pharynx, or in some part of the œsophagus, is so frequent, and so very justly accounted a dangerous and fatal disease, that I hope any reasonable endeavour to obviate its danger will not be unacceptable.

Every one must have had experience that this disease has resisted the most powerful remedies. Van Swieten in his comment on

§ 797 of Boerhaave, gives a catalogue of medicines applied in this case by himself, and other physicians, and all in vain. The tartarus tartarifatus and regeneratus. Starkey's celebrated penetrating soap, composed of oil of turpentine and salt of tartar. Crude sal ammoniac, and its volatile spirit saturated with distilled vinegar, applied both outwardly and inwardly, with sufficient perseverance, either did no good, or only gave a short and temporary respite from a disease which soon returned as bad as before.

Mercurial unctions, and mercurial plaisters with the gums applied to the neck; strong purges, and even salivation itself were unsuccessful. Emollient decoctions, oily and lubricating medicines were often serviceable in rendering the passage more open, so long as any passage remained, but did not cure effectually and radically. The recent roots of the black hellebore beat to the consistence of a cataplasm with vinegar of squills, and bryony root pounded with crude sal ammoniac, and applied to the neck, failed. A probe with sponge fixed on whalebone, and introduced

duced into the œsophagus to force open the stricture was ineffectual, and manifestly hurtful by irritating that sensible part, and increasing the pain and swelling in it.

I knew a murder committed, (I hope the faculty will pardon the expression) by an attempt to open a passage into the stomach by this kind of forcible entry.

I have found lubricating oils, burnt sponge, and mercurial unctiōn fail; I fear when the œsophagus is much thickened, or when a scirrhus blocks up the passage, medicine will be of little service, yet in this unhappy situation, a method may be adopted which promises some good, and which entitles it to a preference to medicines of an irritating and stimulating nature. All the good that is to be done, will be effected by relaxing or gently dilating the stricture. For this last purpose, bougies of a proper size might be tried, as proposed very judiciously by Mr. Wathen; and, endured without pain, or retching to vomit, and especially if followed with any advantage, they ought to be continued, and from

time to time repeated ; if otherwise, certainly laid aside. The advantage is most likely to be secured by giving bolusses of butter, and other oily substances. I certainly have seen some palliative good done by oily linctusses. The food ought always to be milky, demulcent, nutrient, soft and liquid. Though I have hardly ever seen mercurial unctious useful, I remember curing a person by giving corrosive sublimate dissolved in the spirituous tincture of Peruvian bark, in a manner similar to the celebrated solution of Van Swieten. A spongy relaxed appearance in the uvula and glands of the throat, led me to administer this medicine, which I by no means think likely to be generally useful.

Opium and extractum cicutæ, bid air in my opinion to be more generally useful in this disease than any other medicines. They will operate powerfully in removing the spasmodic stricture, which sometimes is the sole cause, and more or less attends every other cause of this disease. I remember a young woman, still alive, who without any inflammation, swelling, or apparent cause in
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the throat for several days, laboured under this disease of the œsophagus, so that no solid or liquid food passed into the stomach. She was cured by taking fifteen drops of thebaic. tincture on sugar every four hours. She took six doses in this manner before the stricture yielded to the medicine, but has remained well and free from the disorder ever since the year 1780. I judged her disease proceeded from spasm, but think it highly probable that if it had not been removed by the medicines, at hickning of the œsophagus would soon have ensued, and the disease would have become permanent and incurable.

In 1782. I was consulted for —— Robinson, a tenant of W. Childe, Esq. of Kinlet, and who used to accompany him in the sports of the chace. He had for a considerable time laboured under a disease reputed incurable, which had prevented all food from passing into the stomach, from an obstruction below the pharynx. I ordered a grain of extract. thebaic. with a few grains of extract of hemlock to be taken in the form of pills two or three times in the day, but to hold

them in the mouth till dissolved, and to swallow the solution with the saliva, and to avoid every attempt to take any thing else which might bring on straining, and force the medicine back again. By adhering to this method a few days, the obstruction was removed, and the power of swallowing solid as well as liquid food was perfectly restored. The disease however returned, and was fatal to him about three years afterwards. I imputed this to the habitual indulgence of drinking spirits and drams; and it is somewhat remarkable, that he, after this relapse, neither used the method, nor the assistance of him who had administered relief, till it was visibly too late to be useful.

I have applied the same method and medicines since that time in several instances, and from the success, I venture to recommend the plan in preference to any hitherto in general use for this formidable malady.

When the pressure of swelled glands is found to be the obstruction to deglutition which I remember to have happened in some
cases

cases of bronchocele, and which may be suspected, if the patient has knots in the glands of the neck, or any other marks of scrophula. In such circumstances, the deobstruent medicines which are specifically proper in scrophulous diseases are indicated. In order to give such medicines efficacy, it is necessary to apply them topically to the absorbing orifices of the lymphatic vessels which enter into the obstructed glands, and again emerge from them in their course to the lacteal duct, where it disembogues its contents into the subclavian vein. This is a point of great importance, for being thus applied, medicines will very probably go in full power and efficacy into the obstructed glands.

Medicines which are conveyed into the body by the lacteal vessels have no such advantage. They mix with the blood, and circulating with it have only a remote chance of ever arriving at the seat of the obstructions intended to be removed. In order to arrive at these glands, they must be thrown out in secretion, and again absorbed by the lymphatic

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tic vessels which are to convey the lymph to the glands in question, and along with that lymph these specific medicines, a piece of luck, if duly considered, hardly to be expected.

It is therefore certain that the holding the medicines directed for the bronchocele under the tongue till gradually dissolved, is in the highest degree a rational practice, and indeed found such by experience, long before this reason was thought of, as being necessary to their efficacy.

I prescribed for a lady of a scrophulous habit, and who has had repeated returns of an obstruction in the passage of food along the œsophagus the following bolus:

R. *Spong. ust. Flor. Martial. ā ʒi.*
Conserv. Rosar. q. s. f. Pila sublingualis.

which she was ordered to hold under her tongue till dissolved, and to swallow the solution; this she did for a fortnight or three weeks at bed-time every night, and has been constantly cured by it.

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I am certain the same mode of administration will add greatly to the power and efficacy of any other medicines which may be thought proper in such circumstances. But early application to medicine is in this, as in all other dangerous diseases, of the utmost consequence to its success.

A R T I C L E XVIII.

Cases of unusual Affections of the Tongue, by Mr. THOMAS HAYES, Surgeon, &c. at Hampstead, in a Letter to J. C. LETTSOM, M. D. &c. and by him communicated to the Medical Society, with a further Account of a similar Affection.*

Read June 16, 1788.

C A S E I.

AT seven o'clock in the morning, on the second of January 1781, I was desired to visit J. Wembridges, of North End, near this

* This ingenious young gentleman, author of a well written Essay on Consumptions, died the same night on which this paper was read to the Society.

this town, a very sober, honest, labouring man; as I was not very well, my assistant went to him, and found him in bed, and received the following account from him and his wife, viz. That he had supped the night before on bread and cheese, and with it drank a pint of porter, and went to bed perfectly well; about three o'clock in the morning he awoke and looked at his watch, to see if it was time to go to his work, but finding it too early, slept again, till between five and six; at this time nothing ailed him, he then got up and went to his work across Hampstead Heath as usual; in the way he thought his tongue seemed to swell, as it really did, and continued to do so, till he could hardly be understood when he spoke: my assistant bled him pretty largely, and gave him an ounce and a half of sal catharticus amarus dissolved in some liquid. About eleven o'clock I saw him myself, and found the above account confirmed; his tongue was amazingly swelled, the face exceedingly florid, and a large proportion of blood seemed derived to the whole head; he complained of an insufferable pain in his back and loins, that he could with difficulty sit

fit up, while I repeated the bleeding, which I immediately performed to the amount of sixteen ounces; the pain in the back was somewhat abated by the bleeding, but the tongue was so much swelled, as greatly to impede his breathing, and it was with the greatest difficulty that he swallowed any thing. Warm injections and fumigations were applied frequently to the tongue, emollient clysters were exhibited, the feet were put into warm water; a nitrous saline mixture with tartar emetic, &c. was given as often as possible, his pulse beat 130 in the minute, and was full, hard, and strong, which determined me in the evening to repeat the bleeding, and I took ten ounces more blood from him; although he got stools from the first salts, I repeated them on the morning of the third, which operated very well, the antimonial saline mixture had sweated him a little, but the difficulty which he had to breathe, prevented him lying down, and encouraging it. I ordered fumigations of vinegar and red port, the clysters and pediluvium to be repeated, but there was not the least abatement of the size of the tongue, and it now began

began

began to look of a dark black colour, or rather as if it had been broiled over a smoaky fire. Indeed I expected it would mortify; in a case so singular, I confess I knew not what to do, and indeed had I known, there was very great difficulty to get any thing down his throat. I ordered the continuance of the antimonials, and sent him a large blister to put round the whole throat, with powdered camphor spread over it, this was put on for a little time, but had not drawn at all, when some of the neighbours fetched Mr. Goodwin, an ingenious surgeon of this town to see him, at a time when I was from home; he recommended the blister to be taken off, and a poultice of bread and milk to be applied to the throat, and a large blister between the shoulders; when I came home in the evening, the above had been done, but not with the least benefit. On the morning of the fourth I saw him early, much the same as the preceding night, the blister had drawn, and the poultices been kept on, and frequently renewed warm; I ordered four grains of James's powder every third hour, saw him in the middle of the day much the same; at night I was sent
for

for in great haste, and was told he was dying; indeed he had very appearance of being so, except that his pulse was still quick, full, and hard; the James's powder had sweated him profusely, but without any evident benefit. I ventured to bleed him again in this state, and ordered the poultice to be taken off, and the blister to be put round the throat, as I had before directed. As soon as the blister began to draw, and to discharge any lymph, the tongue gradually lessened, he breathed freer, the tongue became white and moist, and by the next evening he was out of all danger, and a couple of purges completed his cure. It may not be improper to remark that he had not the least swelling of the gums, palate, or throat, nor any complaint in the head, nor did his blood shew any large portion of buff, and the serum and crassamentum were proportionable.

C A S E II.

Mrs. ANN STEENTON, a linen draper and shopkeeper in Hampstead, aged 81, rather
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of a florid habit of body, but remarkably healthy for her time of life, and a very honest intelligent woman, applied to me on the 8th of November 1780, for something to relieve a troublesome itching that came on her hands and other parts of her body, particularly at night, after she became warm in bed. Finding her well in other respects, I advised her to let nature take her own course, and to use no medicine to remove it. On November the 12th in the morning I was sent for in haste, and received the following relation from my patient, which was also confirmed by her niece and servant; that she had continued to be troubled with the itching after being warm in bed, from the time I first saw her, till the preceding night; and when she scratched herself, which she was unable to forbear from doing, that a number of lumps, or weals would arise upon the skin; the itching hindered her getting her usual sleep at night, but subsided in the morning, and left a degree of roughness on the skin. On the night of the 12th the itching raged with uncommon violence all over the body, arms, &c. But one of the weals, or bumps as she called

called

called them, was particularly troublesome to her on one of her arms, which she endeavoured to abate, by putting her tongue to it, thinking the saliva would allay the heat and itching of it; but she was much surprized to find a small swelling and protuberance arise upon the tongue, attended with some sense of pain almost immediately, but as this was not so proportionably painful as the itching was troublesome, she lost the idea of it for the present, and tried to compose herself to rest, as she had had but little sleep for several nights before. Soon after she fell asleep, she awoke scratching her arm, and not thinking of the former effect on her tongue, applied it immediately as before, which almost instantly became swelled to a great degree, attended with a numby sensation, not unlike to a slight paralytic affection, which prevented her being understood when she spoke; this continued for many hours, and alarmed the family very much. As I was not at home when first sent for, I did not arrive soon enough to see the tongue very much swelled, but there was some tenderness and tension left upon it, and it was in a degree numbed, and she said the disorder

disorder affected the root of her tongue. I found no other complaint but the effera on the skin, the body sufficiently open, and the pulse as usual. I ordered an antimonial laxative mixture, of which a dose was to be taken every four hours, and an anodyne draught at bed-time.

The mixture caused a slight diaphoresis on the skin, and the draught procured rest at night, she suffered very little afterwards, from the itching on the skin. On the 14th a diarrhæa came on, which proved critical, and continued for several days, which I moderated with a few grains of rhubarb and confectio Damocratis, and my worthy old patient lost her troublesome itching, and remains hearty and well.

I am, Sir,

your most obedient humble servant,

THO. HAYES.

Hampstead, Nov. 28, 1786.

To the Medical Society of London.

GENTLEMEN,

SOON after I received the preceding histories, the following *account of a singular swelling of the tongue*, was presented to me by a gentleman equally distinguished for his great practical knowledge, and the liberal communication of it by important publications: I know well the subject, whose case is described, the accuracy of which is unquestionable.

JOHN COAKLEY LETTSOM.

London, Jan. 17. 1787.

An Account of a singular swelling of the Tongue.

The texture of her frame so finely wrought,
That one might almost say her body thought.

DONNE.

THE subject of this disorder is a lady who has a mind endued with great sensibilities, and a body equally delicate and irritable.

Vol. II.

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Whenever the former is impressed by any distressful ideas, the latter is in consequence of them sure to be affected by palpitations, spasms, fevers, and other nervous complaints. These latter as constantly make a transition to the intestinal tube, and there produce a short but painful diarrhæa, by which as by a perfect crisis, all these complaints are terminated.

It is now more than nine years since the final period of menstruation; nor was it long after its cessation before she was seized with occasional swellings of her tongue. It was once so exceedingly thickened as to depress the lower jaw to the greatest extent, forcing itself between and beyond the molares on each side, the incisores full an inch before the lips, and backwards so far as to compress the epiglottis, by which the respiration was nearly stopped. The attack now referred to, which was the worst of all she ever had, happened in the night. At this very alarming height of the disorder, deprived of speech, and incapable of taking any thing, she was instantly bled in the arm, as the only means that

that could be used. From this awful moment the swelling began to abate, and the tongue gradually sunk down to its natural size. The returns of this swelling are uncertain as to time, and apparently unconnected with whatever constitutes a periodical complaint. It sometimes comes on once or twice in a week, at others not oftener in two or three months. It has the same variations as to its extent and magnitude. But the manner in which it begins, the time of its increase and procedure to an height, as also that of its declension, is more uniform and regular.

It is always preceded and attended by a torpid head ach, sleepiness, a kind of anxious indolence, and incapacity of exertion, with a pulse more slow and weak than natural.

This swelling always begins near the tip or on one side of the tongue, where it may be taken up between the thumb and finger, and felt distinctly by them, as if it was a gravel stone, or small barley corn included within the substance of the tongue. It is

however, perceived by the patient, much sooner than it can thus be distinguished by others.

This little solid particle may be felt, and even seen to encrease with great rapidity, so as to equal the hardness, and even exceed the size of a nutmeg, within the space of an hour; and so on in a similar proportion, till it arrives at its height, which has been from four to six, or eight hours, according to the degree of magnitude it arrives at. It is generally twice as long in subsiding as in its encrease, and consequently from its commencement to its termination, may occupy the space from twelve to twenty-four hours. Although the tongue has in general been the seat of this tumefaction, it has occasionally affected the lips, swelling as hard as a stone, and to an immoderate size. It has more than once occupied the tonsill and velum pendulum palati of one side, as also the posterior part of the fauces, and top of the œsophagus, so as to hinder deglutition during its continuance. These were accompanied by the same internal symptoms, but with less suffering than when it was in the tongue.

These

These swellings still continue to make their appearance chiefly on the tongue, but not so frequently or to so great a degree as for the first three or four years of their commencement.

As to the immediate causes of this disorder, they appear to be the same, as those which produced the diarrhæa, mentioned in the beginning of the narrative; for when the tongue swells, there is then no diarrhæa, and vice versa.

The first physician consulted on this occasion was the late Dr. Fothergill, who prescribed an equal atmosphere. Frequent bleedings, a fluid and vegetable diet, excluding animal juices, and all fermented liquors. But the patient being brought extremely low by this treatment, and neither the swelling, nor the diarrhæa, becoming less frequent during that process, it was relinquished.

Doctor Hinckley was so firmly persuaded that a mild mercurial course would produce a salutary change in the constitution, that it
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was complied with by the patient; but this was followed by a diarrhæa, which was put an end to with the greatest difficulty, and no small hazard of life.

The late Doctor Hunter; the learned and excellent Doctors Heberden and Wathen, all declared themselves unacquainted with the nature of this disease; the last of these, however, together with Doctors Allen and Paul, thought it might be a species of the arthritica vaga, but their unanimous advice was to leave it wholly to nature, or at least to use only such methods as might give strength to the constitution.

About five years ago she was seized with a kind of universal gout or rheumatism, attended with extreme pain, and the loss of motion in the right arm. All which went off in the space of three or four months, leaving her exceedingly low and weak, for which she was advised to drink, and to bathe in, the hot springs of Bath in Somersetshire; but these were so injurious that they were left off after a few trials. On her return to town, she had
a severe

a severe fit of the gout in her knee ; and sometime after another in her ankle and great toe ; These paroxysms were deemed by some who had been consulted, a confirmation that the disorder in the tongue was of the same species, but this I shall not pretend to determine, the return of that complaint, however, either at the time or in the intervals between those paroxysms, were neither more nor less frequent, better or worse, than before these seizures.

This swelling, when in the tongue, except in the dreadful attack abovementioned, always kept strictly to that side of it where it first began, being exactly limited by its rhapshe. It was the same when it seized the lips, and the tonsils, &c. and probably so in the fauces and œsophagus, though this last could not be so exactly determined. All the physicians whose names I have mentioned, not only gave their own personal attendance to this case, but were so obliging as to investigate the writings of many of the ancient as well as modern pathologists, without finding a single precedent of this kind of disorder.

This

This case was attended to, and prescribed for, by two justly eminent and excellent physicians. But as their prescriptions were of a potent nature, and exhibited without any clear or direct indication, they proved very injurious, and nearly cost the patient her life.

If then, men of this high character were culpable in prescribing medicines and methods for the cure of a disorder, the nature of which they were totally unacquainted with, and the event of which was so pernicious: it is my ardent wish, and the main design in this narrative, that those who intend to enter, as well as those who now tread the path of medical Science, may avoid prescribing potent medicines, in every case where they are not plainly indicated: at the same time they endeavour to imitate these excellent men and physicians in the general tenor of their practice and conduct in their profession.

A R T I C L E XIX.

Observations on the Palsy, by WILLIAM FALCONER, M. D. F. R. S. and C. M. S. &c.

Read March 26, 1787.

THE Palsy is well known to be the loss of motion or of sensation, or of both, in any part of the body. It generally happens that both of these are affected at the same time, and I believe it always takes place in some degree; but we may often observe, that the proportion which the loss of motion bears to that of sensation is very different in different persons. Some recovering the sensation very soon, and almost if not altogether in a perfect manner, whilst the power of motion continues very languid; others again quickly recover strength, although the faculty of sensation remains very imperfect. In general, if the paralytic limb retains its natural warmth, the feeling is tolerably acute, and
if

if by any means the natural warmth can be restored to a cold palsied limb, the sense of feeling commonly returns in a good measure with the warmth; but this does not hold universally, nor is the sensation thus restored, though often sufficiently acute, always of an accurate kind. I have known persons, whose palsied limbs were exquisitely sensible to the impressions, *c. g.* of a fly creeping on the skin, who could with difficulty distinguish a piece of silk from woollen, by handling it. The general account such persons give of their feelings is, that it appears to them as if a piece of thick leather was interposed between their skin and every object they touch.* Fre-
quently

* I have seen two instances wherein the sensations were so far depraved by a paralytic affection, as to exhibit to the mind opposite sensations to what they had formerly done; cold and pressure conjoined in the same body, exhibited the sensation of heat. A gentleman the day after having had a paralytic attack of no very violent kind, called in the morning whilst in bed, for a cup of water to drink. Upon his grasping it to bring it to his mouth, he exclaimed that his servant had brought him water nearly boiling hot. He was, however, prevailed on to taste it, and it then gave to his tongue the usual sensation of cold. Cold water gave a sensation of cold also to his hands, when they were im-
mersed

quently a pricking feeling is complained of in palsied limbs, resembling that which accompanies the temporary palsy that is brought on by pressure on any nerve, by setting or lying long in any particular posture; and I think I have generally observed such cases admitted of relief. The muscles of a paralytic limb are often diminished, and of a loose flabby consistence, obvious to the touch on handling them; and I believe this takes place very generally in paralytic affections of long standing. The degree of diminution, is however, in no proportion to the duration or the violence of the disorder. I have seen an instance when the limb was no wise affected in

inmersed in it, but a cold body pressed hard against his hands felt hot. When he rose from his bed, and placed his feet on the floor, he could scarcely believe the floor was not ready to burst into flames, till he recollected the sensation relating to the water he had just before experienced. The pressure, however, of a warm body, gave no peculiar or uncommon sensation. His shoes felt hot on first putting them on, but when reduced to the temperature of his feet felt as usual. This extraordinary depravation of sensation was not accompanied with the slightest injury to the understanding, or any alteration of the feeling in any other respect.

in this respect, although the paralytic affection was very complete, and of long standing. Palsies are generally defined to be disorders attended with diminution of the power of motion, or sensation, or both; but a case once occurred to me wherein these faculties, if at all, were so slightly affected, as not to be discoverable. Notwithstanding which, I think the case might justly be denominated a paralytic one. A young lady of about three years and a half old, of a remarkable rosy complexion, was observed to turn pale suddenly on one cheek, whilst the other retained its colour. As her strength and spirits seemed not to be affected, this was little regarded at the instant, but undressing the child in the evening, the whole of the body on the same side with the cheek affected, was found to be turned of a pallid colour. In a few weeks the leg and thigh of the same side began to waste, but the strength did not appear to be diminished, and no reason offered itself to induce an opinion that the feeling was altered. The use of the waters externally soon restored the limb to its natural size and colour.

The

The flexor muscles in palsies have been often said not to be weakened so much in proportion as the extensors, and this is said to be instanced in the hands and fingers, which when in a paralytic state generally appear to be somewhat in a state of contraction. But I have observed that in such cases, it was equally difficult to make a farther contraction, and to bring the fingers into close contact with the palm of the hand, as it was to extend them altogether. I therefore apprehend this state of the muscles, to be only that in which they naturally are, when not acted upon by any effort of the will, and not in any positive state of contraction. It frequently happens that the arm is not greatly weakened in point of strength, and is of ability to sustain or lift a considerable weight, when it is utterly incapable of performing any of those operations that require any nicety or dexterity; writing for instance.

The understanding is sometimes, but not always affected in palsies. Loss of memory, and childish imbecilities, seem to be the
points

points to which mental injuries of this kind mostly tend; but I have seen instances wherein the mental faculties were violently depraved by it. This was the case at times, and during the intervals a childish imbecillity took place.

In cases where the understanding is not obviously altered, it is very common for a great change to take place in the temper. Great impatience and anxiety about the event are very common, and the sufferers usually flatter themselves at times with hopes of a complete recovery, and are angry with those who attend them for not acquiescing in the same opinion. Whilst these sentiments prevail, remedies are eagerly sought after and tried, but if, as can scarcely be expected, no great benefit appears in a short space of time, all confidence and hope is lost, and a train of despairing melancholy thoughts is apt to succeed; and remedies which might by long use have proved beneficial, are renounced before any reasonable trial could be had.

If an accurate enquiry is not made, we may often think the mental faculties of paralytic persons to be uninjured, when in reality they have suffered a very severe shock. It is not uncommon to see people in this condition discoursing in a manner perfectly rational, and with the memory seemingly unimpaired, but such persons are at the same time unable to read a few lines in any printed book, and still more frequently to write a sentence in a letter, or even their own name. It is proper to remark that paralytic persons frequently retain their own ideas tolerably clear, when they are unable to recollect the words which are proper to express them. Hence they are apt to mistake the names of objects, and to substitute wrong words while their own ideas are perfectly consistent. It, however, often happens that in the severest paralytic attacks, the faculties of the mind remain uninjured till the departure of life.

The greater part by far of the paralytic complaints that I have seen, have been hemiplegias, or palsies of half the body in a longitudinal direction, and I am apt to suspect that
they

they are all so at their first attack. It is common enough to see paralytic patients after some time recovered of the affection in several parts of the body, and having no sensible mark of it remaining, except lameness of the leg or arm, or hesitation of the speech, but if we examine these cases closely, we shall almost always find, that at the first attack the disorder took the form of an hemiplegia, and that at that time the marks of it were sufficiently distinguishable.

The transverse hemiplegia, or palsy of half the body in a horizontal direction, I never saw, nor do I believe that an affection of this kind, that may properly called a palsy exists, at least in this country. It is common enough to see the lower extremities reduced to a state of great weakness and insensibility by rheumatism, and other complaints, but though this when in its worst stage, puts on the appearance of palsy, it is in reality a very different disorder from a true idiopathic palsy. All those of the rheumatic kind recited by Mr. Sauvages, seem to me to be symptomatic. The hemiplegia transversa, or palsy of one
arm,

arm, and the leg on the other side, I never saw; and though mentioned as common by some writers, I have much doubt concerning it. The nicety with which the exact half of the body is affected in hemiplegias is worthy of remark: the face, nose, tongue, and lips, are divided with the minutest accuracy and this I believe never varies. In paralytic attacks that are not so violent as immediately to threaten life, we almost constantly find a degree of recovery after the stroke, which generally lasts for three or four days, and seems a kind of re-action of the system, or a sort of natural effort to resist or throw off the complaint. This sort of recovery is generally ascribed to the remedies used, which may no doubt often help to promote it, but I have seen it take place nearly in the same manner where no remedies, or at least none to which any good effects could be ascribed, had been used. After this temporary effort, the condition of the patient is generally stationary, until a fresh attack. Every paralytic attack I ever saw, and I think it to be essential to the disorder, was sudden, and I believe instantaneous. When thought

to be gradual, it consists, I apprehend, of a series of slight attacks.

Palsies were formerly thought to be complaints peculiar in a good measure to old age; but the following account will shew, that all ages are subject to them, and that the period of life between the ages of thirty and forty years, which we should least of all have expected, is full as liable to it as any other.

Out of 100 paralytic cases, extracted from the register of the Bath hospital, in the order of their admission, thirteen were under 20, and several under 10 years of age, twelve between 20 and 30, thirty-six between 30 and 40, twenty-one between 40 and 50, and eighteen between 50 and 70. The above were all spontaneous palsies, and almost all of them evident hemiplegias. Particular constitutions and habits of body have been said to pre-dispose to palsies. Plethoric persons with a short neck and florid complexion, great appetite, and indolent habit, are undoubtedly pre-disposed by these circumstances

to that kind of palsy that succeeds apoplexy, and which probably arises in some manner not thoroughly explained from repletion; but with respect to other habits, I know of none that are exempt on the one hand, and on the other I know of none more subject to palsy than another. Palsy in plethoric habits is generally preceded by symptoms of coma and apoplexy, but in spare habits it often comes on without any previous symptoms of that kind. I have found from repeated observations, that nothing is more uncertain than the signs which are supposed to foretel paralytic attacks. Vertigo, temporary numbness of different parts of the body, confusion of ideas, convulsive startings, and involuntary muscular contractions, together with great agitation and dejection of spirits seem to partake of the nature of palsy very strongly. Yet I have seen many persons who laboured under these complaints, and who I could not help fearing, would suffer an attack of the paralytic kind, but who never were so attacked. One gentleman in particular, who was subject to symptoms of this kind, in as great a degree as any I have

known, and who in consequence thereof was predicted above 20 years ago, to die soon of a paralytic stroke, is now alive in good health, and in full possession of all his faculties at the age of above 80 years. From the presence of such symptoms I have apprehended such an attack in fourteen persons, of whom one only, who unfortunately for me, was an intimate friend, died in the manner expected. Paralytic patients are frequently observed to be costive; and sometimes I have seen this to a great degree, and obviously a part of the disorder; but though commonly occurring, costiveness can scarcely be called a general symptom; and when moderate, seems to be more owing to the sedentary life such persons lead, than to the disorder. The appetite of paralytic persons is generally pretty great, and often more considerable than it was accustomed to be when in health. I was for some time of opinion that this was owing to a weakness of the sensitive faculties of the stomach, by which it is enabled to judge when it is satisfied; but I am now inclined to think this opinion erroneous, as I have generally found that no complaint has been made
of

of the quantity so taken in, feeling heavy or oppressive, or of being not easily digested. On the contrary, this process appears to go on regularly and well. Nay, I have* several times observed the digestion considerably more regular, and the stomach less flatulent, and apparently less disordered, after a paralytic stroke had taken place, than before. This circumstance seems to contradict an opinion which has been entertained by many persons, that the cause of palsies generally originates in the primæ viæ†,

Paralytic people are sometimes much inclined to sleepiness, but this, though common, is not general. I have often seen them much distressed for want of repose, and obliged to have recourse to opiates for that purpose.

P 3

Convulsive

* Since the above was written, a case has been sent to the Bath hospital, of a person who had for a considerable time been subject to vertigo, confusion of ideas, spasmodic contractions of the limbs, lowness of spirits, and many other nervous symptoms, all of which disappeared on the patients having a paralytic seizure, which affected one side of the body, but did not take away its use.

† I have generally found that the appetite when it had been large, and begins to fail, indicates the termination of life to be at hand.

Convulsive twitchings of the muscles (generally of some particular, and often small muscle) are very common with paralytic patients. These convulsive efforts are often attended with great pain of the parts affected. They frequently occur during a course of the Bath waters, and are regarded when not very violent, rather as a favourable symptom. Pains in paralytic limbs sometimes happen, independent of convulsion, and sometimes these are very severe, and resembling those of the rheumatic kind. They, however, are found in people who before the paralytic seizure, were never liable to pains of the limbs of any kind.

Paralytic limbs are subject to swell immediately on the attack. This swelling appears uniform throughout the part, and is mostly of a soft and flabby kind, and seldom, I believe, at first at least, anasarcaous. It sometimes goes off quite in a few days. If it continues long, the lower extremities are apt to become œdematous. I have observed large fat people more inclined to swellings of their limbs after paralytic attacks, than such as are of a thin spare habit. Paralytic limbs are
sometimes

sometimes subject to perspire largely, and are often in such cases constantly in a moist state. This is generally, and I believe with reason, esteemed a bad sign, especially as external applications of the warm kind have a tendency to increase this discharge. Sometimes the paralytic limb seems to have its perspiration obstructed, and the skin in a parched dry state. This symptom generally yields to external applications. Young people afflicted with this complaint are more apt to have the perspiration in paralytic limbs increased than those in a more advanced age.

It should seem probable, though it is by no means to be accounted as proved, that men are more subject to the idiopathic palsy than women. Out of 64 patients in the Bath hospital, for palsies without any assignable cause, that were admitted in the year 1776, 45 were men, and 19 women. The provision of beds for women patients in the Bath hospital is little more than half of those provided for men, yet the women's apartments are seldom full, and often not much more than half, and those of the men most commonly full, and often with 30 or 40 patients waiting

ing for admission: It is observed, I think by Boerhaave, that those paralytic attacks are the most dangerous in which the muscles about the mouth or face are affected, but this I rather think was inferred from an idea, that the disorder would be more hazardous, as the parts nearest the brain, or seat of life, were affected, than from any experimental observation. The muscles of the face, neck, or throat, are affected more or less, in almost every hemiplegia at its first attack; though this affection frequently goes off entirely in a short time. But I have not found such cases, even where the affection of the face was more permanent, to be attended with more immediate danger to life, or to resist the power of remedies more obstinately, than other cases wherein those parts were not affected.

Paralytic disorders are thought to be more common in cold weather; but this I apprehend is true only of old people. Young and middle aged persons appear to be equally liable to it at all seasons of the year. Plethoric persons, and such as feed high, are generally most liable to these attacks a few hours after dinner, seemingly about the time of the absorption

forption of the food and its passing into the circulation, but persons of a spare habit are oftener attacked after long fasting, as in the morning especially, if they eat nothing at supper. I do not find any particular posture, or position of the body, in general, disposes to attacks of this kind, more than another. I have seen people who have been attacked standing up, sitting, lying in bed, walking, and riding; nor do I believe the attack was influenced by any of these circumstances. I should, however, observe, that I have often seen people of a nervous constitution who were seized with vertigo, on viewing objects in an oblique position with their eye.

On the cure of the palsy. The parts of the body that have been affected with palsy, if they recover at all, do it very irregularly. The parts that lie nearest the brain do not recover the soonest. The voice, when that is affected in an hemiplegia, generally recovers first, next the leg, then the arm, and last of all frequently the muscles of the face. Remedies for the palsy may be considered as external and internal. This division, though
improper

improper for a regular treatise, may be allowed in a collection of observations only. With regard to the use of external applications, we should consider that there are in most palsies two distinct symptoms; one the loss of heat and feeling, which I believe always accompany one another; and the other the diminution, or loss of strength. These, though generally combined, are not, however, entirely dependent on the same cause, as they may be lost and recovered, independent, in a good measure, of one another. It appears also that some kinds of external remedies of the stimulant kind are more particularly adapted to restore the warmth and feeling of the part than others. External heat is of this kind, the most convenient application of which, is by means of a hot bath, or stream of water let fall on the part. This I apprehend should always be tried previous to the application of the more acrid stimulants, as blisters, &c. If stimulants of the latter kind be applied before the feeling be restored in some measure, it has been observed they were of little service, being often very languid in their operation, and apt to cause very troublesome

blesome and ill-conditioned sores. If used on the contrary, after the bath has been sometime tried, blisters have often an excellent effect in exciting the languid motion of the part, and seldom cause any trouble in healing.

In order to be able to use the waters externally, at the same time with the application of other stimulants, I have often tried embrocations of equal parts of tincture of cantharides with the volatile aromatic spirit, or spirit of sal ammoniac; but I find the simple tincture of cantharides full as convenient as either of the others. If the embrocation be made with the spirit of sal ammon. with quick lime, it proves caustic in a good degree immediately on its application. If made with the simple spirit, or with the sp. vol. aromatic. it seldom, except in very tender skins, shews any effect at all.

The tincture of cantharides used alone, produces a slight stimulus, and a little redness of the skin, without raising a blister or making a sore. As an active remedy, however, I think the application of a blister preferable.

Flour

Flour of mustard seed rubbed on the skin, I have often seen advised, but never saw any effect at all from it. Rubbing with a flesh brush is generally recommended in palsies, but I think with less advantage than might be expected, though I do not deny it to be rather of service, but I am confident I have seen better effects from long continued gentle rubbing with the hand.

It is a frequent practice to lap up paralytic limbs in many folds of flannel, and to keep the person so affected, very warm in every respect. But this is, I am satisfied, a very noxious practice, as it generally induces a tendency to sweat on the paralytic part, which always weakens it, and is with difficulty, even by an opposite method, restrained. Paralytic limbs should no doubt be kept so warm as to feel easy and pleasant in respect of temperature, but a constant application of heat not only produces the inconvenience mentioned above, but destroys the effect of temporary warm applications, whose efficacy depends in a good measure on the shock they produce by the difference of their temperature, to that to which the part is usually accustomed.

Even

Even external stimuli that depend on temperature, are found to succeed better when the heat is moderate, than when it is raised as high as the feeling can well support. Some years ago, when the hot bath, which is allotted to the hospital patients was repairing, the sick persons belonging to that charity bathed for two years or more at the cross bath, which is only 94 degrees, whereas the other is usually, I suppose, at least 105. It was agreed by the medical faculty that the paralytic patients during that time recovered faster and more completely than when they bathed in the hotter water. Some of the ancient writers seem to have been of the same opinion when they advise the moderate warmth of the skin of an animal newly killed, as an application to a paralytic limb. Internal remedies for palsies are very numerous, which is a great presumption, were there no other, that they are mostly ineffectual. I have often tried some of the most stimulating substances that can be given with safety, as the filiquose plants, as mustard, horseradish, in strong tincture and infusion, the aromatic and heating spices, as cloves, and the guinea pepper

per; from the last of which only, I have observed some advantage to be gained. Emetics are frequently administered in palsies, indeed so often as to make a part of the common routine of practice. When tried soon after the seizure as an evacuant, they are often of great service, and indeed when the constitution is strong they are often useful, by the shock and agitation they produce independent of the evacuation they occasion. But in weak irritable habits they are, I am convinced, often very injurious; straining and fatiguing the patient, and increasing the debility, and thereby aggravating all the bad symptoms.

Purgative medicines, especially such as are called of the warm kind, are frequently exhibited in palsies, and where evacuation is required, frequently with some good effect, but if often repeated tend only to weaken the body and hurt the appetite and digestion, and of course encrease the disorder. When it has been necessary to give purgative medicines, I have generally found it serviceable, if the evacuation has been at all considerable,

to give a warm opiate at night after it, which surprizingly abates the tremor, lowness, and other nervous symptoms, so apt to accrue in such circumstances. Most of the medical writers, and practitioners, object to the use of opium in palsy, on account of the effects it produces being so similar to those of the disease we wish to cure. But I am convinced from repeated experience, that however appearances may be against the use of opium, that in this instance appearances are fallacious, and that opium when indicated by pain, spasm, uneasiness, or other troublesome symptoms, may occasionally be employed with as much safety in palsy as any other complaint. The Turks who injure their healths so much by opium, do not more frequently die of palsies than other people.

Several mineral poisons are said to have the power of producing palsy, but I never saw a true palsy, or hemiplegia, that was owing to such causes. There seems to be a specific difference in the kind of palsy produced by each of the mineral poisons. Thus lead affects the strength of the muscles that support

port the wrists, and causes the muscles that form the ball of the thumb, and frequently the deltoid muscles of the shoulders to waste and diminish, but seldom produces any tremors, dimness of sight, or affection of one side more than the other.

Copper I have seen cause stiffness and rigidity, together with a paralytic inability to open or contract the muscles of the fingers, but not that flabby texture of the muscles that lead produces.

Antimony I have seen produce such a weakness of the stomach as to cause every thing to be rejected from it; and I have also seen it produce a palsy in the hinder legs of a dog, and I am informed this happens frequently among hounds where crocus metallorum is often given for the mange.

Arsenic I have repeatedly known to produce palsy. In one instance it seemed to affect the hands, somewhat in the same manner as lead is known to do, but in two other instances no such effect was observed, but the
paralytic

paralytic affection was general. It began, indeed, with a numbness at the extremities of the fingers, but no particular affection of the wrists, no wasting of the muscles, as is the case with lead, was observable.

Mercury also is well known to be apt to produce palsy, especially when inhaled in fume or vapour, as among gilders. Vertigo, tremors of the limbs, hands especially, ophthalmia, and general weakness of the limbs are the consequences, but * no specific affection of any particular part. Mercury also is well known in many instances to have the effect of disordering the understanding to a great degree.

Bismuth, which is used as the basis of a fucus or paint for the face, much in use among women, has been thought to possess qualities similar to the other metallic poisons above-mentioned. Its principal effect seems to be shewn on the eyes, which it weakens very much.

Vol. II.

Q

Zinc

* I have seen two cases of persons becoming totally blind by the too free use of mercury.

Zinc, I am inclined to suspect, has some similar qualities. Do not its virtues in epileptic cases, if it has any, depend on its sedative properties? Electricity has often been recommended as a remedy in palsy, and much cried up by some that pretend to secrets in the mode of administering this remedy. But the medical faculty have, I believe, nearly lost all faith in it, from experience of its general inefficacy to be of service, and in some instances, of its mischievous effects. I am more certain that a strong electric shock possesses the power of causing a palsy, than I am of its having any power to cure it. We have lately had two instances in the Bath hospital, of persons who had paralytic attacks, after being struck down with lightning.

I have myself seen electricity tried in many paralytic cases, but never saw it produce any good effects. In some that were attended with great pain in the palsied parts, it had the effect of encreasing this symptom, but this instead of conducing to the cure was evidently injurious, as the limb was always much weaker, as well as more painful, after the administration of the proposed remedy.

ARTICLE

A R T I C L E XX.

Case of an Ileus, with Observations on an Hydraulic Machine, by JAMES BUREAU, Surgeon, and F. M. S.

Read October 24, 1775.

ON the 3d of May 1775, a lady went on a jaunt into the country, and at night was seized with a violent pain in her bowels, which continued some time without remission, and attended with a bilious vomiting, which frequently returned. As she was costive, a cathartic enema was exhibited to procure stools, and ease the pain in the bowels. She was blooded, and various medicines of the purgative kind were given for ten days successively, together with tobacco-fumes per anum, and cathartic enemata, in order to procure stools; the warm bath was also used, and opiates occasionally administered, to relieve the pain and vomiting, but all to no purpose;

Q 2

purpose; the retchings frequently returned, the pain in the bowels continued more or less violent, and no stool could be procured. These symptoms continuing without any abatement, she was on the 13th day seized with a truly stercorous vomiting, exceedingly offensive to every one about her, yet was hardly sensible of it herself, either by smell or taste.

In this way she continued till the 16th without any relief of her symptoms, by all the medicines or means that had been tried, at which time she was brought to town, when I first saw her, and received the above account from her husband.

The situation I found her in, was truly deplorable, being in constant violent pain, and the fæcal vomiting returning sometimes every half hour. Before I proceeded to the farther trial of medicines, I made every necessary enquiry by examination, as far as could be, whether or not there might be an incarcerated hernia; but could discover nothing that could induce me to suppose that that was the cause of the disease.

I ordered

I ordered warm fomentations to the abdomen; sometimes she took pills of aloes and soap, at others the Rochelle salts in peppermint water, just as her stomach could bear, and the tobacco fumes per anum, were also very frequently applied, until it was found that they encreased the disposition to vomiting.

Her skin in general was very cool, rarely perspiring, and her pulse from the beginning of her illness (as I was told) was extremely firm and regular, and never from the first had she any febrile symptoms, or marks of inflammation. It was proposed to give her crude mercury, but she absolutely refused taking it, lest, if it should not pass through her, it might add to her uneasiness by its weight; and, indeed, at this time she objected to every thing in the way of medicine, being persuaded that it would all prove ineffectual, and would take nothing but a little liquid nourishment now and then.

However, about the second or third night from her coming to town, she voided two or three very hard scybala, of a whitish colour,

lour, and apparently unmixed with bile, so that I reasonably imagined that there was some obstruction about the lower extremity of the intestinum ilion, occasioned by indurated fæces, and that that which came away was a part of what formed such obstruction; as the clysters that had been thrown up had evidently passed the rectum, from the quantity that had been received: but no benefit was experienced from this evacuation, the obstruction seemed still as obstinate as ever, and the stercorous vomiting still frequently returned.

Just at this time I recollected a hint that Dr. Stephen Hales has given in his *Hæmastatics*, of the method of filling the intestines with warm water, by means of a perpendicular tube, and thereby to subdue inflammation, or resolve obstructions in the primæ viæ.

I thought the present case a very proper one, to make such experiments in; and I accordingly got a tin tube made, about four feet long, of about an inch and a half diameter

meter at top, and half that size at bottom. At the top of the tube was affixed a large funnel-head, with several holes near the brim, through which cords were passed to tie it up to the tester of the bed; and at the lower extremity of the tube was fixed a small sheep's gut (there being no time for getting any thing better then) to which also was fastened a common clyster-pipe. The tube thus placed, the pipe was introduced in ano, the patient lying on her side, and held firm by the nurse, whilst a mixture of warm milk and water was poured into the funnel-head, and gradually insinuated itself into the intestines by its perpendicular gravity, which, however, soon caused much pain from its pressure in the bowels, so that she could not bear it any length of time, and it was accordingly removed.

Soon after this she had some cold water thrown over the abdomen, agreeably to an experiment, that has sometimes been made to remove obstinate costiveness, but which at the time seemed to effect nothing. However, in two days after the application of the tube, she was suddenly seized with a violent purging,

ing, from which time all her other symptoms gradually vanished, and she was thoroughly restored to health. From the long duration of the complaint, and the apparent insufficiency of all medicines to remove it, I think it may fairly be concluded, that the introduction of the mixture of milk and water into the intestines, was the only thing that seemed to be attended with success; for though it was two days before the purging came on, yet I can suppose that some of this fluid remained in the bowels in contact with the indurated fæces, and in the course of that time so softened them as to render their expulsion easily effected.

I have already observed that the first hint I received of making use of an hydraulic machine in obstructions of the bowels, was from Dr. Hales's hæmastatical experiments; for from the observations he has made of its effects on brutes, he supposes great advantages may be derived from its use on the human body.

On perusing De Haën's *Ratio Medende*, Vol. ii. ch. 23. I found an history of an hydraulic

draulic machine communicated to him by one Widemar, a Milanese physician, who extols its use very highly, and transmits to him two cases in particular, wherein it was of signal service, to which I refer the reader.

In the case of the lady already recited, not having a proper tube ready at hand, I was obliged to get one made as quickly as possible, as soon as the thought struck me, that it might be useful; therefore I got one made of tin, and consequently inflexible; it was hung up by the side of the tester of the bed by strings which passed through holes made at the brim of the funnel-head of the tube, and hung down perpendicularly; to the bottom of which was an elbow made, forming an obtuse angle about a foot long, at the extremity of which was a piece of sheep's gut tied, and last of all a common clyster pipe was fixed to that. This was the machine which in my haste I put together.

The great uneasiness which the patient felt, from the use of this machine, was no doubt from the pressure made against the
valve

valve of the colon; infomuch that ſhe could not bear it many minutes; and my tube being inflexible, I was unable to lower it ſufficiently to take off that preſſure, for by lowering it towards an horizontal direction, the liquid would run out from the top: whereas in the tube I have ſince contrived, the funnel-head can always remain upright, whilſt the reſt of the tube may be lowered to any degree; having thoſe parts of it that are flexible made of leather ſewed cloſely over a worm of wire; ſo that by bending it, the ſides of the leather cannot collapse, as they would do without ſuch a proviſion, and at the ſame time keeps it more ſteady.

Vogel, de cognoscendis et curandis præcipuis corporis humani affectibus, adviſes the uſe of this machine.

After having enumerated the different methods to be made uſe of in an inveterate ileus, ſuch as purges, oil mixed with hot broth or gruel; emollient and ſtimulating clyſters frequently repeated; the uſe of tobacco clyſters, and even quickſilver; he then
 adds



Scale one Inch to a Foot



adds, “ Sin autem nec per hanc rationem ileus aut obstructio expediatur; ope machinæ hydraulicæ, in Italia nuper repertæ, multa aqua tepida ex inferioribus partibus impetuose in alvum, per intervalla quatuor circiter horarum, injicienda est.

I do not at all doubt but great benefit may be obtained from the use of such a tube, judiciously applied; at least when every other common milder means have been used ineffectually. I think we may be authorised to use it, and say with De Haën in his own words: “ Cum morbus sit formidandus, nec raro cito necans, mirum non est, forti nodo, quæsitos fortes cuneos esse, et in desperato, desperata tentata.”

EXPLANATION OF THE PLATE.

From fig. 1. to 2. of the tube, is leather, under which is a wire worm.

From fig. 2. to 3. is entirely of tin.

From fig. 3, to 4, is leather with the worm.

Fig. 5, is the clyster pipe affixed.

A R T I C L E X X I.

Case of Inflammatory Constipation of the Bowels, successfully treated by JAMES MACCATRICK ADAIR, M. D. in a letter to W. FALCONER, M. D. F. R. S. and C. M. S. and by him communicated to the Medical Society of London.

Read April 28, 1788.

Bath, February 25, 1788.

S I R,

I COMPLY with your desire in sending you the following case, which you were of opinion, ought to be communicated to the public, on account of the singular mode by which the patient was relieved.

Thomas Stone, aged about 24 years, had been ill for several days before I visited him. His complaints had been deemed to be nephritic, and, I suppose, were treated accordingly;

ingly; but, from every circumstance, it appeared to me that he laboured under an inflammatory constipation of the bowels.

Having prescribed a copious bleeding, opiates and purgatives, his bowels became soluble at the end of the third day after I visited him; but the constipation again took place, and the former means, together with the use of clysters of decoction of tobacco, of the smoke of this plant, and of repeated aspersions of cold water on the abdomen and extremities, were totally unavailing. I therefore had recourse to what has been, for many years, my dernier resort, in such cases, which after repeated trials, effectually removed the constipation, and the patient is now free from every complaint, except that of great debility.

The means by which this relief was obtained, were many years ago suggested to me by the perusal of the late celebrated professor De Haën's *Ratio Medendi*.

In one of his chapters, De Ileo, he mentioned an instrument, invented by an Italian physician, for the relief of persons labouring under this disease. This instrument was nothing more than our common garden pump, which is employed for watering our wall-fruit trees.

To the spout of this was affixed a leathern tube and a clyster-pipe; and by means of the pump, warm water (with or without oil, or other laxatives) was injected per anum.

The professor tells us that he made the experiment on a dog, and found that liquids thus injected, not only surmounted the valve of the colon, but passed into the stomach, and were rejected by the mouth. Soon after, an opportunity occurred of trying this expedient, and it succeeded; and so far as my recollection serves me, I have failed only in two out of 12 or 14 cases which have occurred in my practice.

In one of these it was probable that a gangrene had taken place before I was employed;
in

in the other it appeared, from dissection, that a portion of the jejunum was so contracted as scarcely to admit a goose quill; but so extensive was the operation of the machine, that all the portion of the canal below the impediment had been quite emptied by the injection.

Common clysters seem to fail not only from their quantity being too small, but from their not being injected with sufficient force, even by a syringe; whereas, by this machine, a quantity of liquid, equal to six or eight pounds, may, at once be injected into the canal, where being gradually diffused, it dissolves hardened fæces, and discharges them per anum; and though, where a permanent scirrhus constriction has been formed, no relief can be obtained by any means; yet I am inclined to believe that neither this nor other insuperable causes of fatality occur so often as is suspected.

With respect to those species of the disease which are supposed to proceed from intussusceptio, and incarcerated hernia; if the former is really a cause, I believe it occurs very rarely

rarely, and I conceive that this mode of injection is the most likely means of removing the impediment; and, I know from experience, that it will generally empty the bowels, when the progress of the fæces is intercepted by hernia, provided the extra-abdominal portion of the intestine is previously replaced by the hand, or by the operation for the bubonocèle: but so far as my experience avails me, I may venture to assert, that of the cases which have ended fatally, 19 in 20 proceed from indurated fæces, or the stones of fruits or other insoluble substances, being accumulated in the canal, in which case, this machine, when employed early and assiduously, cannot fail of saving the life of the patient.

I proceed to offer some hints for the use of this machine, and shall conclude with a few cursory remarks on intestinal constipation.

The tube may be about a yard and a half in length, and about half an inch in diameter, the pipe should be of the largest size, with a
broad

broad rim to prevent the regurgitation of the liquid through the anus.

The injection has been sometimes simple warm water, or medicated by the addition of oil, soap, muscivado sugar, or common salt, according as the state of the bowels seemed to require its being less or more stimulating, to the quantity of a gallon or more. This injection being heated, and put into a narrow earthen vessel, the pump is to be immersed into the liquor, so as to cover the air holes, the embolus or staff is to be worked till the tube is filled, and the liquor flows from the pipe nearly of the warmth of milk from the cow. The pipe is then to be introduced into the anus, and the liquor injected gradually, until the patient complains of a sense of painful distention of the bowels, owing to the parietes of the intestines being too suddenly stretched by the column of liquid injected. The operator, therefore, must stop for one or two minutes, and in the mean time the abdomen should be gently rubbed with a little warm oil, to assist the diffusion and ascent of the liquid into a superior portion

of the intestine, in consequence of which the sense of distention gradually abates, or totally ceases, when the injection is to be renewed with the same precaution, until the patient is seized with an irresistible desire of going to stool.

If nothing but the injection is discharged, the operation is to be repeated every hour, or two hours, till the fæcal contents are evacuated; and in the intervals, cold water may be dashed on the abdomen and extremities for a minute or two, which, beside its powerful effect in resolving spasmodic constrictions, diminishes febrile heat, and invigorates the patient.

As the liquid is cooled in its passage through the pump and tube, it should be heated to about 120 or 130 degrees of Fahrenheit's scale, but for this there can be no certain rule, as the sensibility of the bowels must be different in persons, either constitutionally, or in consequence of morbid irritation; care, however, should be taken that the heat may be rather below, than above, par.

Cold clysters have been recommended in cholics; but as I never made the experiment, I cannot determine how far their application may be adviseable, when the bowels are in a state of inflammation.

I have not, upon enquiry, found that this machine has been employed for this purpose, in the British dominions, by any other practitioners; a circumstance which, if true, is very surprizing, considering the respectable authority on which it is recommended, and the frequent fatality of the disease under the common modes of treatment.

With respect to the other remedies employed; when the pulse is strong and quick, I always order blood to be drawn from a large orifice, from experimental conviction that the suddenness of the depletion, contributes more than the quantity evacuated, to abate inflammation, and to render the use of subsequent means more safe.

When the pain is great, and the stomach so irritable, as to reject whatever it receives,

R 2

I always

I always prescribe opium in a solid form, in doses proportioned to the degree of irritation, and never venture on cathartics of any kind, until I have reason to believe that they will be retained; for the premature use of them, not only defeats the purpose of their administration, but often exasperates all the symptoms.

I am, however, more cautious and sparing in the use of opium in inflammatory, than in spasmodic cholic, and, indeed opium is so indispensibly necessary in the colica pectorum, or dry belly ach, as it is vulgarly termed, of hot climates, that I have been assured by a West India practitioner, that he has frequently and speedily cured this disease by giving a grain of opium every hour, and the spasm being thus resolved in 24 or 36 hours, the belly has sometimes become spontaneously soluble.

I never, however, carried the use of opium so far, even in this species of cholic (which, in its nature and symptoms, is analagous to the bad cholic of this country) nor have I
ever

ever had occasion to employ the garden pump, though I believe an early use of it would shorten the cure, and might prevent the subsequent paralysis, which seems to result solely from violent and long continued irritation.

Physicians are rarely employed at the commencement of a disease; but if an opportunity should hereafter occur, which might enable me to manage the inflammatory cholic in its first stage, I should rely chiefly on bleeding, opium, and the use of the garden pump, without interposing the use even of the mildest purgatives; for I am convinced that they often exasperate the symptoms, and increase the fatal tendency of the disease.

To young practitioners it may be right to point out an error, which is, I believe, very frequently committed. In common cholic, it is a frequent practice to give tincture of rhubarb, or infusion and tincture of senna, and other griping purgatives, which often succeed when the fit proceeds from laxity and flatulence; but, in strong and full habits their sti-

mulus often renders them ineffectual, and even unsafe. The bowels imperfectly emptied by these means, become again costive; but the same purgatives may be so far from being again effectual, that, by their stimulus, they may convert a simple cholic into an iliac passion. To prevent this dangerous transi- tion, instead of repeating the purgative, if the pain of the bowels is severe and fixed, bleeding becomes necessary, especially, if from access of fever, there is reason to suspect that inflammation has taken place, otherwise opium, in doses proportioned to the exigency, assisted by bland clysters, will generally be sufficient for the purpose.

Dr. Chalmers, of South Carolina, recom- mends a solution of the vitriolum cæruleum in the spasmodic cholic: I have sometimes prescribed it in pills with calomel, gumboge, or both, after the pain has been quieted by opium. A surgeon in Antigua, celebrated for his skill in the cure of this disease, relied on the use of large doses of opium and calo- mel, well assured so soon as the mercury affected the mouth, the spasm would cease.

Drastring

Draſtic purges are more ſafe in this than in the inflammatory cholic.

This ſpecies of cholic was, formerly, very frequent in our Weſt India colonies. But, on my return to Antigua in 1777, after an abſence of 15 years, I found that without any aſſignable cauſe, it had become exceedingly rare; and, on converſing with a medical man who had reſided many years at Jamaica, he remarked, that of late it had become much leſs frequent than formerly in that iſland.

I am, Sir,

Yours, &c.

Dr. Falconer.

J. M. ADAIR.

London, June 7, 1788.

DOCTOR ADAIR, finding that Dr. Falconer has omitted to tranſmit to the ſociety ſome farther remarks on the ſubject of the firſt, would deem himſelf deficient in point of candour, were he to conceal a circumſtance which has occurred ſince the firſt paper was tranſmitted to the ſociety.

Dr.

Dr. Falconer being consulted in a case of inflammatory constipation, desired Dr. Adair to give directions for the use of the pump. It was used only twice, and the patient died within 36 hours.

Dr. Falconer did not, however, deem this trial sufficient to lessen his confidence in the machine; and Dr. Adair thinks it highly probable from the account he had of the patient's state at the commencement of the trial, that a gangrene had taken place.

Dr. Adair thinks it proper to remark, that during the first trials, the bowels are so irritable, and the impediment from accumulated fæces so great, that the patient may not be able to receive above one or two pints of liquid before he discharges it; yet afterwards may be able to retain six or eight pints.

He thinks that the best posture for receiving the injection is by leaning on the elbows and knees, and when the patient is tired of this posture, he may receive it lying on his back; because either of those positions seems

to be more favourable to the ascent of the liquid in the intestinal canal.

It would be more convenient to have the vessel, which contains the liquid, made of iron, and soldered to the end of the pump: Dr. Adair directed an apparatus, consisting of the pump, leather tube, and shouldered clyster pipe, to be put up at Jones's, No. 33, Holborn; but as it was to be sent abroad, the vessel was not affixed to it; as any vessel which could contain about a gallon of liquor would answer the purpose. Before Dr. Adair leaves town he will leave full directions with Jones, should any person apply for the apparatus.

A R T I C L E XXII.

An Attempt to ascertain the Powers concerned in the Act of Vomiting, by Experiments made in April, 1787, by JOHN HAIGHTON, Surgeon, and F. M. S.

Read June 16, 1788.

VOMITING is an action which seems to have been explained by physiologists in a more satisfactory manner than many other animal functions. It is generally allowed to be performed by the concurring efforts of the stomach, diaphragm and abdominal muscles; and that none of these powers singly is considered sufficient to produce the act of vomiting.

Before the contents of the stomach are discharged, a moderate full inspiration is usually made, in which the diaphragm descends, or in other words, loses its vaulted concave appearance

appearance on its abdominal surface, and becomes reduced nearly to a plain; in consequence of which, a pressure is made on the upper part of the stomach. Whilst this is performing, the abdominal muscles by antagonizing the diaphragm, draw down the ribs, and at the same time make a pressure on the inferior part of the stomach, so that from the united efforts of these two powers; viz. the diaphragm above, and the abdominal muscles below, we should expect the contents of this viscus would be discharged, and this really happens if a peculiar condition be induced on the stomach, exciting nausea; but in what that particular state may vary from the natural one is not very evident. However, this effect is produced; a slight contraction begins at the pylorus, and extends in an inverted direction as far as the middle of the stomach, by which means its natural convex figure is destroyed, and it becomes somewhat flattened. When these three causes concur, vomiting is produced; and in this way, physiologists have generally explained this action.

But in consequence of some experiments lately made in France, this theory has been called

called in question. It is asserted, that the action of the abdominal muscles is not always necessary to produce vomiting; and that the contents of the stomach can be discharged when their action is taken away. And what is contrary to all expectation, and even repugnant to reason, is, that the stomach, instead of contracting or diminishing its capacity, is evidently enlarged at the instant of expulsion.

A condition of the stomach so opposite to the general laws of animal nature, excited the attention of some gentlemen in this country, and the same experiment which had led to such an extraordinary conclusion was repeated at Edinburgh. A friend of mine who was present gave me the following account.

A dog having swallowed something capable of exciting vomiting, had an opening made into the abdomen as soon as it began to operate; and in a very short space of time, a small quantity of fluid was discharged by the mouth: it was uncertain whether the
stomach

stomach was in a dilated state at the moment of expulsion or not, but was evidently distended prior to it, from a quantity of air taken in by the mouth.

This experiment did not seem in any respect decisive, for I suspected that the discharge from the mouth which had been called vomiting, was occasioned, either by some pressure which the stomach had received by the false ribs; or by the escape of something which was previously lodged in the œsophagus. In order, therefore, to ascertain this point, I made the following experiments.

E X P E R I M E N T I.

A SCRUPLE of emetic tartar mixed with about one ounce of water was given to a dog. In eight minutes he vomited. He was immediately fixed upon a table, and a transverse incision made through the abdominal muscle and peritonæum from the right side to the left. From the center of this incision, a longitudinal one was carried upwards as
far

far as the sternum, in the course of the linea alba : by this means two angular flaps were made. The stomach, and a great part of the intestines immediately protruded, and to prevent the stomach receiving any pressure from the false ribs, I kept them constantly elevated with my hand. About four ounces of warm water, in which a scruple of Roman vitriol had been dissolved, were injected into the stomach (by means of a long curved pipe fixed to an elastic vegetable bottle) to excite the powers concerned in vomiting anew. He soon became sick, and made repeated attempts to vomit, but could discharge nothing. In these attempts air was taken in by the mouth, and every succeeding effort increasing the distention of the stomach, it became at last as tense as a drum. Whilst this was taking place, the fauces were frequently irritated, and violent attempts were thereby induced, but nothing could be made to escape from the stomach. To satisfy myself, that the distention was owing to the reception of air, I made a puncture and discharged it; and to prevent any part of the contents of the intestines escaping into the stomach, from
inverted

inverted motion, I made a pressure on the pylorus with my finger and thumb. In this situation the dog was kept upon the table for an hour, when the powers of life beginning to falter, we resigned him to his fate.

In this experiment the stomach was exposed to the cold air, I wished, therefore, to obviate any objection that might arise from this circumstance; and to this end the process was diversified in the following manner.

E X P E R I M E N T II.

THE same quantity of emetic tartar mixed in four ounces of milk was given to another dog, and in three minutes I made an opening into the abdomen, in a manner similar to the former. The stomach and intestines being completely exposed, and sickness not having yet taken place, I observed with some attention, the changes induced upon this viscus, in its transition from the natural state, to that of sickness. The most obvious natural appearance

appearance is its peristaltic motion. In this, every part of the stomach does not seem to perform an equal share, it being much more evident in the right portion than in the left.

It begins nearly in the middle of the stomach, by forming a circular contraction, so that it seems as if it were divided into two portions like an hour glass. From this point, the contraction proceeds towards the intestines; and in the mean time the part where the action first began, recovers its former state; a succession of these actions constitute the natural peristaltic motion, and in which the left portion seems to perform only an obscure part.

As soon as sickness commenced, this action became weaker, and presently its order was evidently inverted, for instead of the contraction beginning in the middle of the stomach, it began at the pylorus, and extended nearly to the middle; and at this time a quantity of air being taken in by the mouth, it became somewhat distended.

This

applied to the peritonæal coat of this viscus, would so far assist the action of an emetic, as to produce vomiting.

E X P E R I M E N T III.

ANOTHER dog was procured, and the same quantity of emetic tartar mixed in milk, was given to him. In a few minutes he was fixed on the table, and opened in the same manner, and warm water with white vitriol dissolved in it, was again injected into the stomach. He soon became sick, took in air by the mouth repeatedly, seemed in great distress, but could not vomit. Besides keeping up the natural heat of the stomach, by pouring upon it warm water from a sponge, as in the last experiment, I dropped at different times, some of the caustic volatile alkali upon its surface, which excited it to very forcible contractions from the pylorus upward, but it produced no discharge. I waited some time, but no further change took place. I began now to be satisfied that
there

there were not powers in the stomach sufficient to expel its contents, without adventitious aid. I wished to know how small a degree of assistance was necessary, and therefore placed my hand in such a position, that in the next effort to vomit, the diaphragm might push the stomach against me, which it did, and he vomited instantly.

I was very cautious to avoid any active pressure, and therefore made my hand a fixed point, allowing the diaphragm to press the stomach against it, rather than to press upon the stomach with my hand. In about a minute he became sick again; a gentleman who attended the experiment placed his hand in a similar manner, and he vomited again. Though in every effort to vomit, the stomach had been very much pushed down by the diaphragm; yet as the abdominal muscles were removed, its pressure was always eluded; but in placing any resisting body in their stead, without attempting any thing like an imitation of their action, the diaphragm, aided by the stomach's own efforts, expelled its contents.

Having endeavoured to explain what I conceive to be the œconomy of the stomach in this operation, our curiosity may perhaps be excited to trace the causes of such a contrariety of result from the same experiments made by others; and to determine the precise circumstances which led the French physiologists to imagine that the stomach was not only able to expel its contents, without the abdominal muscles, but was even distended at the very moment of expulsion. Of this, I can only conjecture. Vomiting may be produced, if the opening into the abdomen does not extend far enough to the left side; for the lateral portions of these muscles being entire, may, by drawing down the false ribs, press upon the stomach, and thus produce vomiting. And a quantity of air being taken into the stomach previous to the discharge, together with a more evident profusion of it from the action of the diaphragm, might lead an observer, not aware of such a deception, into an idea that the stomach is dilated in the act of vomiting. However, I am persuaded, that experiments conducted under this caution will be attended with a contrary result.

What

What has been advanced above, applies only to animals with stomachs similar to the human subject.

A R T I C L E XXIII.

Case of an extraordinary enlargement of the Abdomen, owing to a fleshy encysted Tumour, by R. PULTENEY, M. D. F. R. S. and C. M. S. in a Letter to J. C. LETTSOM, M. D. &c.

Read June 9, 1788.

MRS. M. was sprung from parents who both died dropfical; and she had a dropfical tendency in her constitution for several years before the disease seemed to originate, which proved fatal to her. She was married about the age of twenty-six, but had not borne children. She had been subject to hysterical affections, but had in general been remarkably regular in the natural evacuations of the sex, and continued so to nearly the last period of her life.

For more than three years before her death, this lady began to be subject to pains of a very excruciating nature, on the left side of the belly, which often attacked her, and sometimes brought on violent spasms, and hysterical fits, which not unfrequently held her for several hours. The violence and frequency of these fits by degrees abated, but all the symptoms of a dropſy advanced very fast, and a weight and tumour, which for some time had been perceived on the left side, became more manifest. It was imagined that water fluctuated in the abdomen; and, though this might probably be the case in the earlier stage of the disease, yet the seat of the pain, and the circumscribed nature of the tumour, from the first, strengthened the suspicion of an enlarged ovary, and announced an unfavourable prognostic very early. The swelling gradually enlarged, and in the space of a year, the whole abdomen became hard, while the tumefaction of the cellular membrane in general subsided, and the body and limbs (except the ancles, which had ever been subject to swell) became gradually emaciated, and finally, to an extraordinary degree.

During

During the greater part of the years 1785 and 1786, notwithstanding the vast bulk of the body, she was able to take the air in a carriage; and almost daily to walk a little way, and her general health was considerably better than in the early state of the disease. Towards the latter end of 1786 however, the legs swelled enormously, broke, and discharged, but without any signal benefit, or diminution of size in the body. For near a month before her death, the mouth and fauces, as has been observed in similar cases, became highly aphthous; and this affection gradually increasing, she sunk under her accumulated calamities, and died January the 30th, 1787, in the 45th year of her age.

Appearances on opening the Body.

Upon puncturing the abdomen with the trocar, a small quantity of a glairy light-brown coloured liquor issued forth. After the integuments were laid aside, there appeared an immense tumour, occupying the whole cavity of the abdomen, and which, from its bulk, had, in an extraordinary degree, deranged the situation of the viscera; all

all of which, though they appeared not to be in a diseased state, were, from the total loss of fat, apparently much reduced from the natural size. The pressure upon them had been so great, that it afforded matter of curious speculation, how the œconomy of life had been carried on so long, under so great an oppression and derangement.

The tumour itself was nearly round, and did not adhere to the parietes of the abdomen, unless here and there by slight fibrous connexions. But, at its origin in the pelvis, it was firmly connected with, or seemed rather to proceed from, one of the broad ligaments, and no trace of the ovary could be distinguished. The uterus was stretched and spread in an elongated manner, on one side of the tumour.

This large body was of a fleshy nature; and, in some parts, of a scirrhus-like, and almost tendinous hardness. It was made up of a congeries of smaller tumours, from the size of a nutmeg to that of an egg; and many were much larger. These were closely compacted,

packed, and intimately united to each other; each, however, being a separate cell, or cyst, with an extremely thick fleshy coat, containing in its cavity, a small quantity of the glairy fluid before-mentioned. In some instances, these cysts seemed to communicate with each other, in others not so. The whole suggesting the idea, that they had originally been hydatids, the coats of which had been gradually thickened, and the whole become an organized mass of flesh. The pressure, as it should seem of the tumour on the *Iliac*, had rendered both of them carious and purulent, and especially that on the affected side. This mass was taken entirely out of the body, and weighed fifty-six pounds, exclusive of the fluid lost in the dissection, which might probably amount to three or four pints.

The first symptoms of a diseased or dropical ovary, are allowedly very obscure and equivocal. Probably in most cases the part is so far enlarged, as to be sensible, even by its weight, to the patient before the disease is discovered. In the advanced state,
it

it is well known to admit of great variety, in respect to the change that the ovary has undergone, as well as in the nature of the contents. In some, the whole forms one large bag, or cyst full of water, of different degrees of fluidity, as in the ascites; in others, it is made up of a congeries of cysts, with coats more or less thick, and the contained fluid is sometimes glutinous and ropy, and sometimes of a steatomatous nature; in others, the whole is made up of hydatids: of this latter kind, probably, were the cysts described in the present case in the beginning of the disease; for that the tumour originated in the ovary, I think we can scarcely doubt; from the strong connection it had with the broad ligament only, and the impossibility of discovering any ovary on that side.

Diseases of this part are, unhappily, among those which admit of small relief from medicine. It may indeed too justly be doubted, (if in any instances they are ascertainable in the beginning) whether the progress of them can be checked by the power of physic.

In

In the later periods, physicians but too frequently experience the inefficacy of their art. Palliative relief is then only to be expected; for what medicine could avail against the increase of an organized mass of flesh, which seemed at last, indeed, to be bounded only by the incapacity of the abdomen to admit of farther enlargement?

In the present case, while the tumour was not extraordinarily larger, and the cellular membrane was loaded, diuretics of various kinds were administered, upon casual diminutions of the renal secretion, with success. As the emaciated state came on, they were more diluted, and gentle opening medicines procured temporary alleviations.

It has been usual to consider and denominate all general enlargements of the abdomen as dropsies; and to this term, among people at large, is even annexed the idea of water in the cavity. Were the prejudices of mankind so far overcome, as to allow of more frequent dissections, the diagnostics of the several kinds of dropsies and tumours of the
abdomen

abdomen might become, if not fixed, at least much more probably ascertainable; and a just prognostic secured by the practitioner, not less advantageous to his reputation, than to the general advancement of the art. Much injudicious and fruitless application of medicine would be prevented, and not unfrequently, the unavailing operation of the paracentesis, by which the fate of the patient has doubtless been often accelerated.

It would be tedious and unnecessary to quote a number of authors for cases of this kind. They are frequent in the writers of pathological observations, and in the Sepulchreta of Bonitas, and others. The Philosophical Transactions, and the London Medical Observations, contain several; but above all, the Historia Anatomico-Medica of Lieutaud, abounds with them, under the heads Ovaria Tumentia, Ingentia, Scirrhusa, &c. Yet, among all these, I do not meet with any, in which the whole tumour was so entirely composed of an hard fleshy substance, as in that of the present instance; since I think, from the best computation I

am

am able to make, that the whole could not contain five or six pints of fluid.

From this circumstance, the disease in its last stage, however connected originally with a dropfical cause, will be found in the systems of modern nosologists, under the term *physconia*; of which genus Sauvages, Cullen, and Sagar enumerate fourteen or fifteen species; deriving the specific name and distinction, from the different viscera, or parts from which they originate.

Sauvages, after quoting the case mentioned by Monro in the *Edinburgh Medical Essays*, Vol. vi. produces one from Horstius*, in which, though not arising from the ovarium, the tumour was equal to that I have described, since it weighed fifty-six pounds, and was of a strong, fleshy and scirrhous substance. It was connected with the stomach, and is referred to the *physconia omentalis*.

* *Nosol. Method*, Vol. ii. p. 485.

In Morgagni's book, *De Causis et Sedibus Morborum*, the reader will meet with much satisfactory information on this head. This author describes a * case in which the ovarium weighed twenty-four pounds. This tumour was unconnected, except with the left side of the uterus, and was composed of vesicles of unequal magnitudes.

I may refer also to an instance in the *Philosophical Transactions*, communicated by Dr. Short †, in which the right ovary was found distended into a sac, containing a large quantity of fluid; and the left was enlarged, and formed a cystic tumour, which weighed twenty pounds. Lieutaud, among many others, from a variety of authors, cites a case from Vater, of a woman who died at the age of sixty years, after having laboured under what was called a dropsy for the last ten, in whom the right ovary had increased to such a magnitude, as to weigh upwards of one hundred pounds ‡.

* *Epist.* xxxix. § 39.

† *Vol.* xlii. p. 223.

‡ *Hist. Anatomico-Medic.* lib. 1. obs. 1487.

A R T I C L E XXIV.

An Account of a singular Case of obstructed Deglutition, by DAVID BAYFORD, of Lewes, M. D. F. R. S. and C. M. S. Communicated by NATHANIEL HULME, M. D. F. M. S. and Physician to the Charter-House, &c.

Read July 2, 1787.

JANE FORDHAM, was born at Bassenbourn, near Royston, in Hertfordshire, in the last year of the last century. From her infancy she was observed to have some difficulty in swallowing; but it was not much attended to, till she entered into her thirteenth year, when she first experienced those symptoms which commonly precede the eruption of the menfes. At this time it became so considerable as induced her to have recourse to medicine for relief; but she received no sensible benefit from any thing, except repeated

repeated bleeding. Every month she was under the necessity of losing blood once, or oftener, according to circumstances, for without it she could not swallow but with extreme difficulty, and a dread of actual strangulation upon every attempt. She went on in this way, with the disease gradually increasing for many years, during which time she constantly observed, that her difficulty of swallowing was increased by violent exercise, and as she expressed herself, by every thing that heated her blood; so that she was frequently obliged to lose blood once or twice in the intervals of the month. The necessity for the stated monthly bleedings was probably owing to a defect of the catamenia, as they never made their appearance till after her marriage, which took place in the 28th year of her age. About this time she removed to Linton, in Cambridgeshire, where her complaints gradually increased for a number of years. She became incapable of taking down nourishment to support her strength, and was at length admitted into the parish workhouse, in consequence of being disabled by weakness from providing for her own maintenance.

nance. From this time I had an opportunity of procuring a more accurate account of her case; and the surgeon who attended the work-house favoured me with the following particulars.

For the last twenty years of her life this poor creature could scarcely, from day to day, muster up resolution to force down food to prevent her starving, so much was the difficulty of swallowing now increased. This difficulty she described as arising from an obstruction in that part of the œsophagus, which is opposite the first bone of the sternum. The food did not return when it came to that place; but seemed to make a momentary stop: and in the instant she felt an inexpressible something approaching to strangulation or suffocation, which she could only compare to what she conceived of the agonies of death. Upon these occasions she always experienced violent palpitations of the heart: and from the extraordinary motions of this organ she formed an opinion of her own case, which is worth mentioning, not only for its singularity, but because it may

convey some idea of the peculiarity of her sensations. She fancied that she nourished within her a voracious animal, and attributed all her uneasiness to the fury with which this half-starved monster fell upon each morsel in it's passage to the stomach. Different kinds of food made no sensible difference in the effects, except that solids gave her less uneasiness than fluids: for which reason she took very sparingly of the latter. As her complaints were continually aggravated, rather than diminished by time, she became at length unable to struggle; and being worn out with fatigue and famine (for it is asserted that she scarcely swallowed a single morsel for the last three weeks of her life,) she sunk into her grave in the beginning of February, 1761.

I was by accident upon the spot at the time of her death; and having heard the above history of her case, I felt myself interested in making a further enquiry into the cause of the obstruction by an examination of the dead body.

Esq.

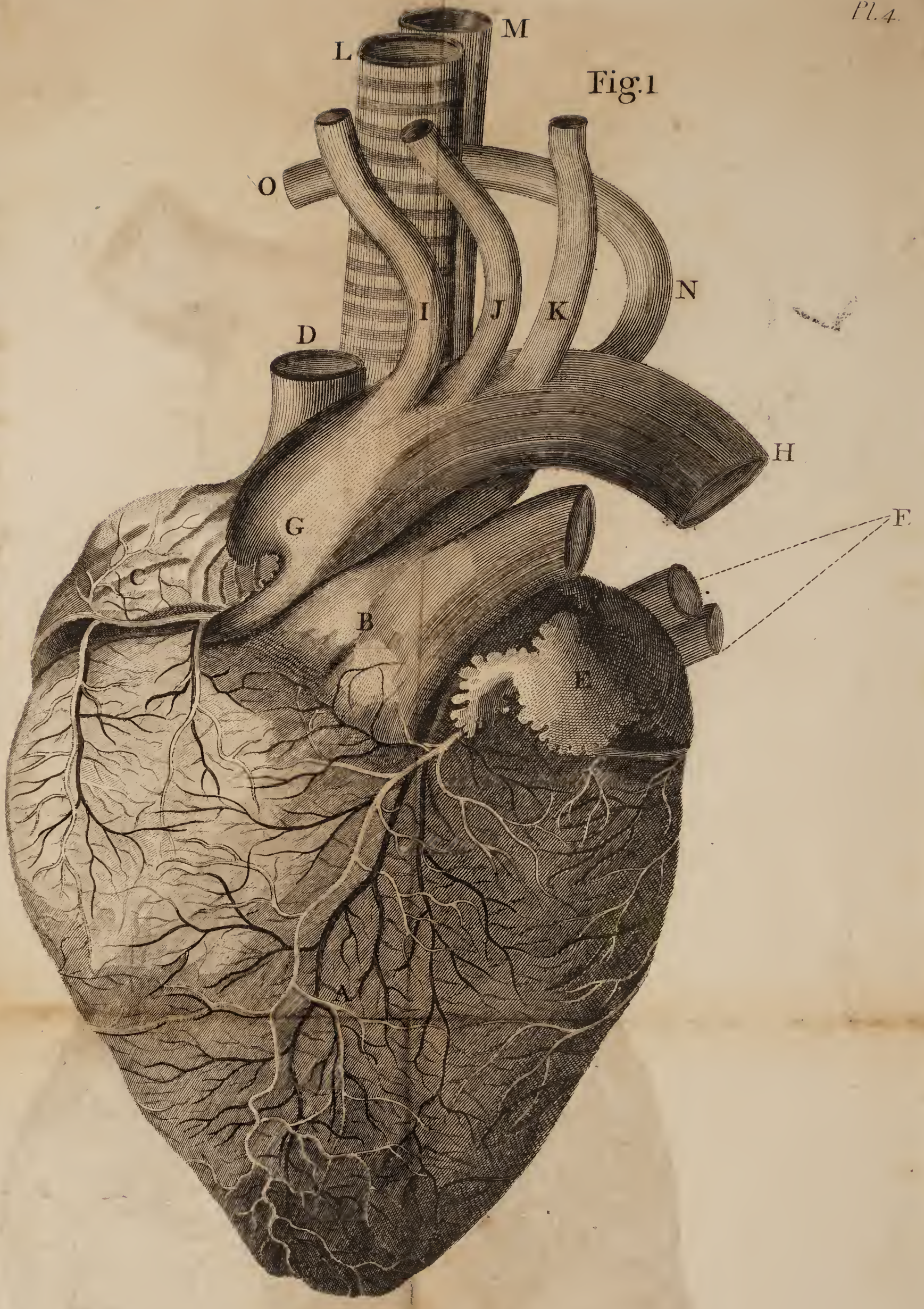


Fig. 1

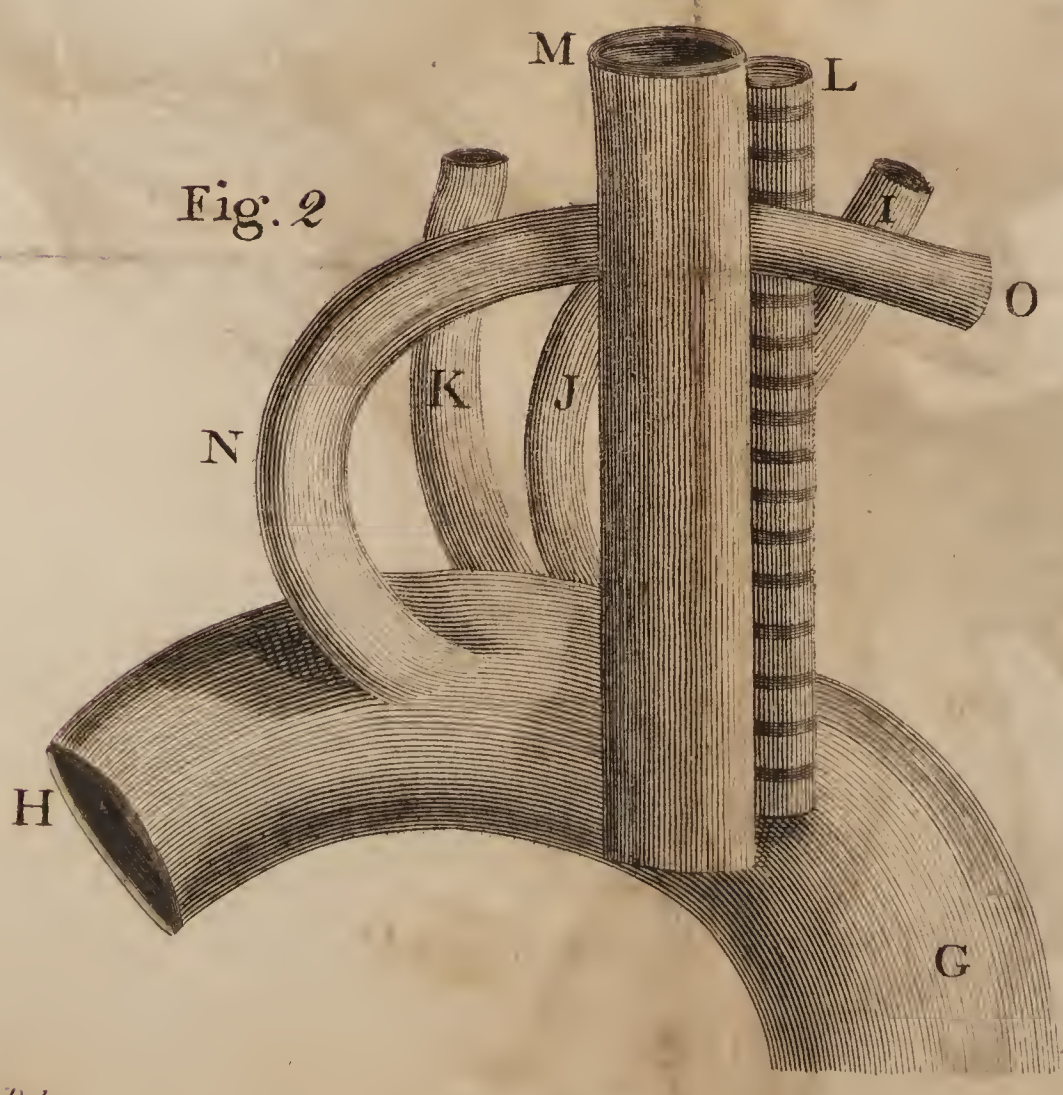


Fig. 2

It was not thought necessary to open the head, as there was no reason to expect any mischief in that part. The cavities of the thorax and abdomen were fully examined; but to my great disappointment, neither in them nor in the œsophagus, or parts adjacent, was there the smallest appearance of disease, except emaciation in the extreme may be thought to deserve the name. At length by mere accident I discovered an extraordinary *lusus naturæ* in the disposition of the right subclavian artery, which will easily be understood by the references to the annexed figures.*

F I G U R E I.

- A. An anterior view of the body of the heart.
- B. The trunk of the pulmonary artery.
- C. The right auricle.
- D. The descending cava entering the right auricle.
- E. The left auricle.
- F. The pulmonary veins entering the left auricle.
- G. The

* The original preparation from whence the drawing annexed was taken, is in the possession of John Hunter, Esq.

It should seem that this peculiar origin and course of the right subclavian artery has hitherto

G. The aorta ascendens.

H. The aorta cut off, at the part where it first adopts the name of descendens.

I. The right carotid artery.

J. The left carotid artery.

K. The left subclavian artery.

L. The trachea.

M. The œsophagus.

N. O. The right subclavian artery arising from the posterior part of the aorta, behind and on the left hand of the left subclavian artery. In crossing from the left to the right side it passes behind the three vessels I. J. K. which arise from the curvature of the aorta, and insinuates itself between the trachea and œsophagus L. M. The trachea therefore occupied a space, which is left between this extraordinary vessel and the other ascending branches of the aorta.

F I G U R E II.

Represents a posterior view of the arch of the aorta, and the four ascending branches before described, with the trachea and œsophagus, the same parts are marked with the same letters as in the preceding figure, N. O. point out the right subclavian artery as before, the origin of

hitherto escaped the observation of anatomists, otherwise in all probability it would have been recorded, if not for its own singularity, at least for the consequences, which must naturally follow from it. It is impossible to suppose the act of deglutition performed in this case, without a certain degree of pressure upon the artery, where it passes between the trachea and œsophagus. Hence must arise an interruption of the circulation, which in so large an artery, and so near the heart, could scarcely fail of exciting very disagreeable sensations.

The degree of pressure must necessarily vary in proportion to the bulk of the morsel
T 3 transmitted,

of which is here distinctly seen. The extremity O. was in the natural state thrown further back, and consequently at a greater distance from the right carotid artery than can be well expressed by the drawing; for the vessel in its course from N. to O. runs nearly or altogether in the transverse line of the body; but the three ramifications which arise from the curvature of the aorta are disposed obliquely, so that the first is anterior to the second, and the second to the third. This circumstance explains the manner in which room was left for the passage of the trachea.

transmitted, the fulness of the artery, and the resistance of the trachea; and this exactly corresponds with the history of the above case. In infancy, the obstruction was small, because the trachea was soft and flexible. As she approached to maturity, the difficulty of swallowing increased; but in the plethoric state only, was it distressing. As she advanced in years, the trachea became gradually more and more rigid; and every care and attention proved insufficient to retard the progress of the symptoms, which of course finally terminated in death.

She swallowed solids more easily than fluids, and probably for this reason; that in the common way of drinking, a more permanent pressure was made upon the artery by the successive column of fluid, than there was by a solid bolus instantaneously passing, and the size of which she could regulate at pleasure.

If the reasoning which I have used upon this occasion, be at all conclusive, and the unusual situation of the right subclavian artery

tery be considered as the sole cause of the obstruction in deglutition; a new species of dysphagia is hereby established, which may be called *lusoria*, from the *Lusus Naturæ*, that gives rise to it.

To distinguish this species of dysphagia in practice will be no very difficult matter, if a little attention be paid to the history of the preceding case. I have purposely drawn it out with a degree of minuteness, which might appear tedious and offensive, were it not in a great measure necessary in pointing out the difference between this and all other known causes of obstructed deglutition. I have thought this the more necessary, because I am fully persuaded that this variety is no very rare occurrence, notwithstanding it has hitherto remained unnoticed. I have met with it once besides in a fœtal subject. Whether the artery in this latter case pass between the trachea and œsophagus, or between the œsophagus and spine, I cannot precisely determine, as I did not examine the parts in their natural situation. I was making a corroded preparation of the fœtal heart,

heart: and had no suspicion of the peculiarity till the preparation was completed. A considerable space was then observable between this extraordinary artery, and the three ascending ramifications of the aorta; and this space was in the natural state undoubtedly occupied by the trachea alone, or the trachea and œsophagus conjointly.

This second instance of this remarkable *lusus naturæ*, discovered like the former by mere accident, may serve to justify the opinion I have just now given, that the occurrence probably is not extremely rare and uncommon. This is the more to be presumed, as it is but now and then that opportunities offer for making an anatomical enquiry into the causes of diseases; and in this particular instance how easily might the cause be passed over, even where it really did subsist? May not such cases have often been considered as spasmodic?

I shall briefly collect into one view the leading characteristics of the *dysphagia luforia*, that they may be more easily contrasted

trafted with the fymptoms of the fame complaint arifing from different caufes.

I. It will be found to have fubfifted in a flight degree, even from childhood.

II. There will be a progrefive increafe of the fymptoms, with an occasional aggravation from plethora, and diminution from abftinence and evacuations.

III. The obftruction will always happen nearly or altogether in the fame place ; namely, in the very upper part of the thorax.

IV. Let the diftrefs in fwallowing be ever fo great, the food will not commonly return by the fauces.

V. and laftly. The act of deglutition will not be accompanied with pain or forenefs, but extreme anxiety and violent palpitations of the heart. Whether the pulse in the right wriſt will be fenfibly affected upon thefe occafions, or whether the irregular motions of the heart may make fuch affections obfcure and
and

and indistinct, must be left to future experience to determine.

If the cause is ascertained in the living body, perhaps methods might be discovered to prolong life, or at least to render it more comfortable than it proved in the melancholy case before us. It is possible we know to afford some nourishment by fumes, by baths, and by clysters; and perhaps it may be found practicable to convey nutritious fluids into the stomach, by means of a flexible tube passed beyond the obstruction. As the parts are in a sound state, the use of the tube will not be attended with the same difficulties as in the common case of dysphagia; and there is room to expect advantage from a mechanical remedy, where the complaint is derived from a mechanical cause, and not from real disease.

A R T I C L E XXV.

Of the Cure of the Jaundice by a particular Mode of Treatment, by JAMES SIMS, M. D. F. A. S. and President of the Medical Society.

Read July 31st, 1788.

EVERY one acquainted with the jaundice knows, that it arises from a great variety of causes, and that consequently a great variety of remedies have been recommended for its cure. The following method of treating it is however little known, the only publication concerning it being contained in the works of a late eminent and learned Divine, where few physicians would think of searching for any thing medical. I mean that best of men, the Reverend Philip Skelton, the adviser of my early youth, and friend of my maturer age, the anecdotes of whose transcendent philanthropy would fill volumes, but his praise will be best known when

when the servile flattering monuments of time, though on the hardest stone or metal, shall have passed away. In the fifth volume of the works of that excellent man, there is some account of a well or pool in the county of Monaghan, famous for curing the jaundice. From this, together with my own observations, the following account is taken. This well, which is called Grallibois (or yellow pool) is situated near the public road from Clones to Monaghan, about three miles from the former. It is about a foot and half in depth, and five feet across. Having no spring in itself, it is wholly supplied with water from a rivulet, which runs within three feet of it, and which derives its origin from an adjacent turf bog. In this pool the patient, stripped to his shirt, is seated, whilst the water is plentifully heaved upon his head and body. Thus thoroughly wet, and still keeping on the wet linen, he is put to bed in some neighbouring house, on which a most profuse sweat breaks out, and continues without the use of any farther means, for a great many hours. The relief is often so sudden, as to produce a strong craving for food

as soon as he rises from bed. This operation is repeated thrice in order to complete the cure. There is a part of the process which I have not mentioned, because it may only raise a smile of ridicule; yet when we consider the powerful effect of the imagination upon jaundiced patients, the superstitious rite of hanging up a rag torn from their clothes upon a neighbouring alder tree, may not be wholly without its use.

As to the efficacy of this method of cure, Mr. Skelton says, that "great numbers have bathed in this well for the jaundice, and been cured, from time immemorial (to his certain knowledge, for more than forty years), after trying all other methods recommended by their friends and physicians, but in vain. There is not a year wherein cures enough are not performed here, to give this water a vogue, superior to all other remedies in this disorder, had it never been resorted to before. People of all ranks and conditions, and under all circumstances and stages of the disorder, excepting such as are far gone in a black jaundice, come hither extremely
ill,

ill, and go away in a few days perfectly well. The notoriety of this is so established throughout the whole country, for twenty miles round (and to a much greater distance among the acquaintances of such as have come from other countries to be cured) that it is wholly needless to assign particular instances. A very great number fell within his own knowledge, and some of persons who were growing black. He adds, “that not one of the patients who have gone thro’ with this extraordinary method of cure, ever complains of the slightest cold in consequence of it, and that the “facts in this narrative are incontestibly and notoriously true.”

As to my own knowlege of this well, I must remark, that living out of the sphere of its fame, and not being so sanguine in my expectations of its efficacy as my late worthy friend, I had not many instances of its virtue that came within my own observation, and as these were not attended with any thing uncommon, I shall forbear mentioning them ; but shall give two instances where
different

different water was successfully used in a similar way. Having, wherever I heard this pool mentioned, given it as my opinion that bog water, or perhaps any soft water used in a similar manner, would have the same effect, a lady who was applied to by a poor neighbour for money to carry her jaundiced child to Grallibois, was induced to try the experiment. She therefore told the poor person, that she had a quantity of the water in her house, and sent her a number of bottles of bog water carefully sealed, which, on being used in the manner already directed, had the desired effect. This justifiable deception has been, I since find, practised more than once with the best success. The other instance could not be so managed. A middle aged man, who applied to me in a most inveterate jaundice, wished to go to the well, but had neither means nor strength to undertake the journey, I told him my opinion as to common bog water, and at last prevailed upon him to try it. I recollect that the sweat produced each time of bathing, was the most copious I had ever known,
and

and lasted for eighteen hours ; and in the end he got rid of a disease which I looked upon as incurable.

A R T I C L E XXVI.

Medical Cautions and Remarks, particularly relative to Pulmonary Disorders ; by THOMAS PERCIVAL, M. D. F. R. S. A. S. and C. M. S. London ; F. R. S. and R. M. S. Edinburgh ; Member of the Royal Society of Medicine at Paris ; of the Royal Society of Agriculture at Lyons ; and of the American Philosophical Society at Philadelphia. Communicated by J. C. LETTSOM, M. D. &c.

Read August 11, 1788.

NE QUID FALSI DICERE AUDEAT ; NE QUID VERI
NON AUDEAT.

CICERO.

SUCCESS in the alleviation, or removal of pain and sickness, is so pleasing to humanity, that it is always recorded with satisfaction, and received with applause. We cannot wonder, therefore, at the numerous
recitals

recitals of it in the annals of physic; whilst disappointment is rarely mentioned, and error is assiduously concealed. Yet though the professors of the healing art are acknowledged to hold the first rank in erudition, they have assuredly no claim to infallibility; nor does it imply disparagement to assert, that the farther their knowledge and experience are enlarged, the more they will perceive and lament the imperfection of science and the inefficacy of medicine. Credulity is often succeeded by scepticism; and the young physician, who repeatedly feels his benevolence frustrated, and his confidence deceived, may be tempted either to relinquish his profession, or sordidly to pursue it, for the emoluments only which it yields. A candid avowal of similar mortifications, by those who are more advanced in practice, would tend to satisfy the mind, to restrain unreasonable expectations of success, and even to promote it powerfully, though indirectly, by pointing out the way in which it is not to be attained. Many of the principles of physic may be deemed demonstrative; but the application of them rests on no other evidence than pro-

bability. In different cases this evidence varies in degree; and we are justified in acting according to that degree which every individual case affords. The same observation may be extended to politics and morality, sciences which are often clearly understood in theory, but egregiously misused in the conduct of life. In the study of the human frame, either corporeal or mental, we proceed analytically, dissecting the several parts of which it consists, and discriminating their properties, relations, and dependencies. But it is by the contrary process that we form maxims of behaviour, moral judgments, and therapeutic rules. And it sometimes requires the most comprehensive knowledge, united with the acutest discernment, to deduce just conclusions from premises at once intricate and multifarious. As the philosopher and politician therefore may, without a blush, confess their mistakes concerning characters, actions, and events; so the physician ought to indulge no apprehension of doing injury to his own reputation, or to that of another, by revealing, on proper occasions, professional disappointments. Cæsar has re-
lated

lated the faults committed by him, in the wars of Gaul. Frederick the Great, of Prussia, has followed this noble example of candour and public spirit. And Hippocrates, who, as a benefactor to mankind, ranks higher than either of them, records a dangerous error into which he had fallen, that his cotemporaries and posterity might guard against it*. But without pleading further arguments or authorities, I shall lay before the Medical Society a few cautions and remarks; assured of indulgence in that freedom, which is warranted by good intention and the love of truth.

A physician of probity will feel himself accountable for the omissions, as well as commissions, which may occur in the course of his practice; since success or disappoint-

* Auturis se deceptum esse Hippocrates memoriæ tradidit, more scilicet magnorum virorum, et fiduciam magnarum rerum habentium. Nam levia ingenia, quia nihil habent, nihil sibi detrahunt. Magno ingenio, multaque nihilominus habituro, convenit etiam semper veri erroris confessio; præcipueque in eo ministerio, quod utilitatis causa posteris traditur; ne qui decipiantur eadem ratione, qua quis ante deceptus est. Cels. lib. viii. cap. 4.

ment, recovery or death, may be the result of the one, as well as of the other. Several years ago I attended a gentleman, labouring under a peripneumony. He was very corpulent, and the difficulty of breathing and inflammatory symptoms required immediate venæsection. The surgeon, though a man of skill in his profession, twice attempted, without effect, to open a vein in the arm. He then bound up the other arm; but just as the point of the lancet was applied to make the orifice, the patient struggled a few seconds and expired. The usual means of restoring animation were tried to no purpose; and I was shocked with the information, communicated too late, that the gentleman had always a strong dread of phlebotomy, to the terrors of which operation, life, in this instance, was probably sacrificed. So melancholy an example, I trust, will ever make me attentive to enquire into the feelings and emotions of my patients, in critical circumstances, as well as into the symptoms of their diseases.

Whenever bleeding is thought expedient, in delicate and debilitated subjects, which it
is

is too often supposed to be, in cases of pulmonary consumption, if great timidity prevail, it ought to be deemed a sufficient contraindication. I have seen a rigor of several hours continuance, and extreme prostration of strength, succeed the loss of only two ounces of blood in a lady, who dreaded the lancet. though she affected to submit to it with magnanimity. Indeed this very effort might contribute to the injury, by being too great for her feeble frame of mind and body. The like observation may be applied to the use of voyages in this malady. Such a mean of cure should only be recommended, when there can be full confidence that the patient is equal to the fatigues, and not disposed to be affected by the terrors of it *. On the same grounds

* It has lately been asserted by Doctor Carmichael Smyth, in his account of the effects of swinging, that the sea air is prejudicial to the hectic and consumptive, and even to those who have any tendency to such complaints. In some instances my experience has been consonant, in others contradictory to his observation. The truth is, Phthisis pulmonalis attacks very different constitutions, and originates from different causes. When labouring under a dyspnœa, many years ago, the consequence of an hamoptoe, I went to Scarborough for the benefit of the sea air.

grounds of reason and humanity, long and painful journies to Bristol, Matlock, and other places of resort, are to be adopted with caution. Change of air and of place is often useful in this complaint; and I have generally observed it to be most successful, when the *medicina mentis* has been the principal object of it. There is a languor, an impatience, and irritability, attendant on such invalids, which is wonderfully alleviated by the charms of variety, and the soothing influence of rural scenery. When a journey therefore is directed, the patient should make frequent stops, and rest several days at once, in such salubrious situations, as furnish comfortable accommodation, and pleasing views of nature. A plan like this is perfectly compatible with that gentle, moderate regimen of diet and of physic, which experience instructs us to be most appropriate to the seve-

Riding on the beach always irritated my lungs, and increased the difficulty of breathing. I could sensibly perceive the acrimony of the vapours which I inspired. But on the hills near Scarborough, and on any situation where the peculiar odour of the shore was not perceptible, I felt refreshment from every breeze which blew from the ocean.

ral stages of the phthisis pulmonalis. The extreme antiphlogistic method of treatment, I have often observed to aggravate the sufferings of the patient, and to accelerate his death. In this malady, inflammation is, perhaps, only an occasional concomitant; for the tubercles, in the cellular substance of the lungs, are found to be of a whitish colour and cartilaginous hardness, and to remain solid till they attain a certain size; matter then begins to be formed in their center: as they grow larger, suppuration advances till they are converted into vomicæ; but these retain their white colour and hard texture, and no blood vessels are to be seen upon them, even when examined by a microscope, after injecting the lungs from the pulmonary artery and vein *. The ingenious physician, to whom we are indebted for so interesting an investigation, hath, however, informed us, that tubercles, when of a certain bulk, and vomicæ also, render the portion of the lungs, contiguous to them, red; sometimes hard, impervious to air, and consequently unfit for

* See the valuable extracts from Dr. Stark's manuscript: *Medical Communications*, vol. i. p. 390.

respiration. In the state described, local inflammation certainly subsists, yet from long and extensive experience I have found, that it does not often manifest itself in the humid climate of Lancashire, by such paroxysms of genuine peripneumonic fever, as require venæsection, or the more active refrigerant medicines. The degree of hectic heat is a fallacious criterion of the propriety of blood-letting; and I have observed it to be generally augmented by that evacuation, when the patient is of a stumous habit; when the hair falls off, the nails grow rapidly, and a considerable wasting of the flesh and strength prevails. Under such circumstances also I have felt painful disappointments in the use of nitre; the effects of which, as a febrifuge, can only be ascertained by those, who have had opportunities of attending to its subsequent, as well as immediate operation. A youth in my family, some time ago, had all the symptoms of a true hectic; and as I then entertained a favourable opinion of this remedy, I repeatedly administered it to him in the dose of fifteen grains. The pulse was usually reduced by it from 110 to 90 strokes in a minute,

minute, for the space of about a quarter of an hour; that is, whilst the stomach remained sensible to the sedative powers of the salt. But a re-action soon succeeded in the system, and the pulse was frequently quickened to 130 vibrations, continuing in the accelerated much longer than in the retarded state; and always suffering a permanent diminution of strength. In cases of this kind, certain medicines of the tonic class prove eventually a ntiphlogistic. A young lady, aged sixteen, nearly related to me, was in the spring of 1785, affected with pulmonic complaints, which threatened a phthisis. As they were accompanied with great langour and debility, I gave her a solution of twelve grains of myrrh, every six hours, in a saline effervescing draught, marking the effect on the pulse with anxious attention. I shall transcribe from my notes only the first observation which I made, because each subsequent one was similar in result. April the 20th, half past seven o'clock in the evening, pulse 120; feeble; the draught administered. Ten minutes before eight, pulse 98, stronger and fuller; half past eight, pulse 100. By
perseverance

perseverance in the use of this remedy, and other auxiliary means, the young lady happily recovered her health and strength. Camphor has been justly recommended in the phthisis pulmonalis; but should be given in such small doses, as not to offend the stomach. It combines perfectly with myrrh; and notwithstanding its supposed heating quality, perhaps acts rather as a sedative than a stimulant on the arterial system, as seems to be evinced by the following curious fact, communicated to me by my late friend, Dr. Dobson. “ In June, 1780, three drachms of camphor was administered to a maniacal patient, in doses of one scruple, within the space of twenty-four hours. The pulse was reduced from 80 to 70 strokes in a minute, and the mania was mitigated. The succeeding day, the same quantity was given in twelve hours. Profuse sweatings and great itching ensued; the pulse sunk to 55; and the mania was cured.” In the treatment of pulmonic disorders, particular attention should always be paid to the reciprocal sympathy, which subsists between the stomach, the lungs, and the heart. Whatever occasions an agreeable
sensation

sensation in the organs of digestion, and at the same time gives a gentle degree of tone to them, will tend to abate the velocity of the pulse, and to check the violence and frequency of coughing. Porter, on these accounts, often proves a grateful and salutary beverage; and affords peculiar support and refreshment under colliquative sweats.* But we cannot, from the sensible qualities alone of the substances to be administered, ascertain their operation on this delicate organ, liable perhaps, in such affections, to peculiar and anomalous feelings. Indeed the action of most medicines on the human body is rather relative than absolute; and cooling or heating, sedative or stimulant, are, in many instances, convertible powers, when applied to different maladies, or to diversified states of the nervous system. A gentleman of rank, in this county, was supposed to be in an advanced stage of what is termed a galloping consumption, having an incessant cough, an expectora-

* The colliquative sweats of the phthisis pulmonalis are much alleviated by the use of a calico waistcoat or shirt, which has been steeped in a strong decoction of the bark. It should be well dried, and daily renewed.

tion apparently purulent, continued heats, and night sweats. Yet his cure was accomplished, by giving wine-whey copiously, and by administering large doses of salt of hartshorn with spermaceti. A very low regimen had been directed by his physicians. The cordial one was adopted by degrees, and with a cautious observance of its effects, which happily proved to be, a progressive abatement of the fever, cough, and spitting, a gentle fit of the gout, to which the patient had formerly been subject, and the perfect re-establishment of his health,

In a curious fact, recorded by Dr. Mead, there appears to have been an interchangeable relation between lunacy and the phthisis pulmonalis; the latter being cured by the accession of the former malady, and recurring as soon as the brain was restored to its natural functions*. I have received authentic information

* Since this paper was written, the following interesting fact has occurred in my practice. Mr. C—s daughter, aged nine years, after labouring under the symptoms of phthisis pulmonalis four months, was affected with unusual pains in her head. These rapidly increased to such a degree

information of a state of fatuity, subsisting from infancy, and nearly approaching to ideotism, that, after thirty-four years, terminated in a consumption of the lungs, towards the fatal close of which, the patient displayed a degree of intellectual vigour, astonishing to her family and friends, and not less so to a learned and judicious clergyman, who visited her officially, and who communicated this account to me. Indeed, in a true hectic fever, the mental powers are generally in a state of improvement; and it is the lively perception of it, which probably excites those emotions of hope, that afford such seasonable support and consolation to the sufferer. Whereas imbecility of mind, when not accompanied with torpor, is always characterized by dejection and despair.

degree as to occasion frequent screamings. The cough which had before been extremely violent, and was attended with stitches in the breast, now abated; and in a few days ceased almost entirely. The pupils of the eyes became dilated; a strabismus ensued; and in about a week, death put a period to her agonies. Whether this affection of the head arose from the effusion of water or of blood, is uncertain; but its influence on the state of the lungs is worthy of notice.

The

The pathology of the pulmonary consumption is not yet ascertained, as will appear from a review of the discordant opinions of numberless writers, from the time of Hippocrates to the present period. The following propositions may, perhaps, lead to a more successful investigation of this interesting subject.

Consumption, when it originates from what is termed a severe cold, is generally preceded by a catarrhal inflammation and fever.

This fever subsides, but the cough continues; tubercles are formed; and a different species of fever, or the true hectic, takes place.

The progress to this second stage, is frequently so slow and gradual, as not to be much noticed. Yet the hectic symptoms, when they occur, are more violent; the prostration of strength, marasmus, colliquative sweats, and diarrhæa, advance with greater rapidity, and terminate sooner in death. In such cases the patients are generally of a strumous habit.

Tubercles

Tubercles and vomicae, probably constitute the characteristics of the disorder in every form; and in their action they seem to bear some slight analogy to the ulcers, or gangrene of the throat, in the angina maligna. They produce a contamination of the parts which are contiguous to them; excite inflammation in the lungs, and a local disposition to sphacelus; generate a purulent matter, often of an acrimonious quality; and destroy the vital energy by a fever of a peculiar type.

In the treatment of hæmoptysis, the anti-phlogistic plan is now generally adopted in most parts of England. And during the incipient stage of the disorder, when the inflammatory diathesis commonly prevails, much injury may be done by heating styptics and rough astringents. But during its progress, the type is often changed. And many cases occur, which even in their commencement, indicate great laxity of the solids and tenuity of the fluids. Under such circumstances, venæsection, nitre, and the debilitating class of medicines, are highly improper, though great authorities have sanctioned their use without sufficient

sufficient discrimination. When the discharge of blood has continued some time, a new state of the system is induced; the heart and arteries seem to lose their due degree of tone; an increased irritability takes place in the ruptured vessel, and in those which are contiguous to it; and thus the impetus of the circulation is partially augmented, with a diminution of its general energy. Remedies, therefore, which rouse the vital powers, and excite an equable action in the vascular system, are clearly indicated. A blister applied to the back has stopped a nasal hæmorrhage. Wine drunk to intoxication has cured both hæmaturia and hæmoptysis, when other means have failed. And the following fact proves the efficacy of opium, in the malady under consideration. Mrs. ——— when about thirty-eight years of age, was attacked with an hæmoptoc. It was supposed to originate from violent retchings; and was afterwards increased by close confinement, and long attendance on a sick child. The quantity discharged from the lungs was from six to ten ounces daily, during the space of more than two months. All the usual means of relief

proving

proving ineffectual, and her flesh and strength declining rapidly, the trial of opium was recommended and happily adopted. She began with taking a grain of thebaic extract every twelfth hour; and by degrees increased each dose to ten grains, so that for a long time she had a scruple of opium administered to her daily. The hæmorrhage quickly abated after the commencement of this course, and by perseverance in it, ceased altogether. But on any omission of the use of opium, she was threatened with a recurrence of the disorder: as she has been necessitated to continue the remedy for nine years; and at this time, August 1787, takes ten grains every twenty four hours.

The use of the pediluvium in hæmorrhages has often been recommended; but with a restriction that its temperature shall not exceed 96 or 100 degrees of Fahrenheit's thermometer. This prohibition is not well founded, if a stimulant be required. When I have occasion to bathe my feet, for the head ach, the water which I use is generally as hot as I can bear it to be; and the sensation which it first

produces, is that of universal chilliness, attended with rigor. A glow of warmth succeeds, and afterwards a gentle perspiration; but the addition of more hot water renews, in a slighter degree, a momentary feeling of cold. It is obvious, that such an operation would be favourable in some cases of hæmorrhage. How is the chilling sensation to be explained? Does the partial stimulus of heat, like that of cold, contract, in its first operation, the small cutaneous vessels?

In America, the treatment of hæmoptysis widely differs from that which is practised in this country. Dr. Rush informs me, that common salt is the remedy universally employed; that it is administered in large spoonfuls, in a dry form; and that its salutary effects are sudden, and for the most part certain. In a letter, dated Philadelphia, February 16, 1788, he says,

“ I am sorry to find that you entertain a single doubt of the safety or efficacy of common salt in hæmoptysis. I could send you
above

above a hundred cases that establish both. My own would be one of them. On the 2d of April, 1766, I was seized with this disorder. It came on in the middle of the night, and for a while was attended with alarming symptoms. I took a table spoonful of fine Liverpool salt, and immediately the hæmorrhage was checked. It excited a burning sensation in my throat, that gave me some pain; but this pain was probably part of the remedy the salt afforded. To prevent a return of the disorder, as my pulse was full, I lost ten ounces of blood, and lived a few weeks on a vegetable diet. After this I took red bark, from which I derived great benefit, and have never since had the least return of hæmoptysis."

Salt is frequently applied, in this country, to external wounds as a styptic. In spittings of blood, therefore, which originate about the fauces, it may act in the same way. But such are not the cases to which Dr. Rush refers; and so judicious and experienced a physician could not mistake the spurious for the genuine hæmoptysis. Whether the American

practice be adopted amongst us or not, we shall, at least, be warranted by it to urge more circumspection and discrimination in the use of phlebotomy and refrigerants*.

* The action of elementary salt, and of nitre, in large doses is very possible. In a singular worm-case, recorded by Dr. Heberden, (see Medical Transactions, vol. i. p. 54.) two pounds of common salt, dissolved in two quarts of spring water, were taken within the space of an hour. Great oppression of the stomach soon occurred. Sickness, vomiting, purging, sweating, rawness, and soreness of the alimentary canal, thirst and strangury ensued. But these distressing symptoms were of short continuance. In June 1780, an elderly gentlewoman took about an ounce of nitre, dissolved in warm water, instead of Glauber's salts. The œsophagus, cardia, and stomach, were almost instantly affected with severe pain. In a few minutes she perceived the mistake which had been made. A spoonful of sweet oil was given; and afterwards repeated draughts of camomile tea were administered. Vomiting ensued; and she discharged a considerable quantity of strongly coagulated, and very ponderous phlegm. The next day I was consulted, but did not see her. The pain in her stomach remained. She had a constant nausea, and felt great languor; but had neither rigour, sweating, looseness, nor increased discharge of urine. Demulcent diet, and a cordial and anodyne mixture soon restored her health.

ARTICLE XXVII.

Case of a diseased Rectum, by J. C. LETTSOM, M. D. &c. with a Dissection by W. NORRIS, Surgeon, and F. M. S. and a Drawing by T. POLE, Surgeon, and F. M. S.

Read July 21, 1788.

W. H. Esquire, the subject of the present history, was a gentleman of great regularity in his mode of living; for some years previous to his indisposition, he had relaxed from his duty as the treasurer of a great trading company, to the indulgence of a country-house, for at least a small portion of the week; his diet was uniformly temperate; he drank but little, he took, however, a little brandy and water daily at dinner and supper, without being sensible of any inconvenience from it; as he enjoyed good health till his 65th year, when he felt a slight indisposition, which he thought arose from flatulence in the intestines; this was in

1786, at which time he consulted my friend Sherwen of Enfield, surgeon, who by regulating the excretions, and occasionally administering preparations of bark, and other bitters, preserved the patient in a degree of comfort that rendered his life easy during that year. Early in 1787, the complaint in the bowels became painfully troublesome, which encreasing gradually, he consulted me about the Midsummer of the same year, at the request of his judicious surgeon, who then informed me, that he suspected a scirrhus rectum.

At my first attendance, he complained chiefly of a sense of wind inflating the lower intestines, which he said obliged him to get up early every morning, under an idea of wanting to go to stool, but that scarcely ever any thing was discharged except wind; sometimes, however, a little faeces was rapidly discharged, with an explosion, as he expressed it, like that of a gun, from the exit of a large quantity of wind: this kind of tenesmus, usually disturbed him about four o'clock in the morning; after which hour the calls were
fo

so frequent, that he became fearful of admitting sleep, or laying in bed afterwards, as the propensity to stool followed him nearly every half hour, and continued usually till nine or ten in the morning, from which hour he was pretty free from any complaint during the day, which enabled him to go abroad, and to discharge the duties of his publick office.

With the efforts accompanying the tenesmus he usually had two or three stools every day, these like the discharges of wind, produced a sudden propensity to go to stool.

He took at different times. columbo and other bitters, cicuta, elixir of vitriol, and different restrungents; but these affording no benefit, emollients and anodynes were substituted with advantage; by the aid of small doses of thebaic tincture, he had more rest, and was enabled to keep his bed for the space of three hours longer in the morning; but the flatulent tenesmus was never totally removed, though the stools, which before were
till

thin and watery, acquired a little consistence, and he had more command of retention; his appetite, however, began to fail, and he daily lost flesh; in hopes of improving his health, he retired to his house in the country for a month; at this time I advised his surgeon to give hemlock clysters twice a day, and to attempt by a sponge-bougie to dilate the suspected scirrho-contracted rectum; the clysters were soon relinquished from the pain they occasioned, joined to the obstacle of the patients delicacy; the bougie could only once be attempted from sufferings, which he expressed by being impaled alive: In September he returned to town, both weaker, and more emaciated in body; the appetite for food, and the quantity taken, were diminished; I now relinquished all expectation of a cure, and reconciled my patient to continue that medicine from which he experienced the most relief, which was a solution of spermaceti with thebaic tincture; a little laudanum composed him, so that he never took more than from 20 to drops in 24 hours.

From

From this period to the end of the year, a gradual decline continued, till in January 1788, he was almost entirely confined to his bed, except when taken out of it to the close-stool; and now, in spite of the opium, he suffered much from diarrhæa; the stools occurring at least every hour, consisting of a bilious watery nature, of a deep brown, and sometimes more dark colour: these evacuations were often copious, whilst at the same time very little nourishment was taken, and this chiefly fluid; his strength now rapidly diminished; but what added still more forcibly to sink it, were rigors, which first came on early in November, and recurred about once in the week; and in January 1788, once in three or four days, they were succeeded by hot fits and colliquative sweats, which together lasted each time nearly twelve hours. At length on the fifth of February, he expired in one of the paroxisms, with his intellects composed to the end of his life.

On the 7th of February I attended the opening of the patient, by W. Norris and T. Pole, surgeons, to whose assistance I am
indebted

indebted for the following history of the dissection, and to the latter for a drawing of the diseased rectum.

On opening the abdomen, the omentum was observed to cover the intestines in an uncommonly smooth and uniform manner, which was owing to an adhesion between its lower extremity and the peritonæum, just above the pubes. This adhesion was not the consequence of any recent inflammation. All the intestines were perfectly found except the rectum, which was long known to be in a diseased state, and which for a more accurate inspection, we entirely removed from the pelvis. For this purpose the colon was divided at its lower end, and, upon gently elevating the rectum, the more easily to separate it from the sacrum and coccyx, its sides gave way and it tore like wet paper. This was immediately followed by a discharge of an offensive, sanious matter, mixed with some steatomatous lumps. This disease of the rectum commenced about an inch and a half from the anus, with a stricture and thickening of the coats of the gut,
and

and extended about six inches. The cellular membrane connecting the rectum to the sacrum and coccyx, and also to the vesica urinaria, was likewise indurated and much diseased. The kidneys, especially the left, were large and flabby, and had many hydatids on their outer surface, but appeared in other respects perfectly sound.

The texture of the small lobe of the liver, and almost the whole of its substance, was destroyed by a large abscess, which was just ready to burst into the abdomen, and which contained a pure *white pus*. This is, I believe, an uncommon appearance, as all other liver abscesses that I have seen, contained a curdled matter of a variety of colours, the most predominant of which was dark brown.

The gall bladder was enlarged to about twice its natural size, though not turgid with bile, and when filled with air, measured five inches and an half in length. The cellular membrane between its coats was emphysematous.

The

The suppuration in the liver probably occasioned the rigors that came on early in November.

Either the disease of this poor gentleman's rectum, or that of his liver, seemed alone fully equal to produce death; and it is surprising that nature could hold out so long against both united.

EXPLANATION of the PLATE.

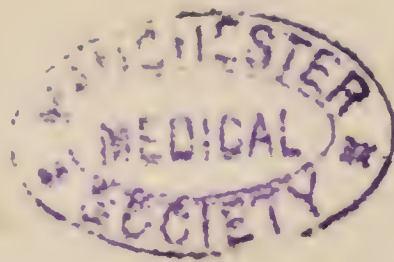
Giving a view of the internal surface of the rectum, by means of a longitudinal incision made posteriorly, and of the enlarged and distorted gall bladder.

The FIGURE is reduced one third of its original size.

- A. The superior extremity of the rectum separated from the colon.
- B. The anus.
- C. A prominence occasioned by the urinary bladder, which is lying collapsed under that part of the rectum.
- D. An ulcerated communication between the rectum and urinary bladder.
- E. That part of the rectum which tore in raising it up from the sacrum.
- F. F. Ulcerated perforations in the rectum.
- G. G. The most diseased part of the gut.

ARTICLE





A R T I C L E XXVIII.

*Remarks on the solvent Powers of Camphor, by
WILLIAM CHAMBERLAINE, Surgeon, and
Secretary of the Medical Society of London.*

Read October 8, 1787.

THE observations on the solvent power of camphor, on certain resinous substances, contained in the miscellaneous memoir of the ingenious Dr. Percival*, explained to me an incident which happened some time ago, and which, until now, I was at a loss to account for; and also induced me to make trial of the effects of camphor on different gums and resinous substances, the result of which trials are now submitted to the Society.

Six grains of camphor, and twelve grains of gum mastich, with twelve grains of strained

* See page 54 of these Memoirs.

opium,

opium, sufficiently soft to make the whole into a pilular consistence, without the addition of a liquid, were well triturated in a mortar, and formed into middle-sized pills, which, though very soft while under the finger, soon attained a considerable degree of hardness; and retained both their form and hardness for upwards of a twelvemonth; but afterwards, suddenly, without being exposed either to heat or dampness, the pills cohered, soon lost their form, and in a very short space of time, the whole mass became soft, and assumed the appearance of a lump of pitch.

This incident, as I have already said, I was at a loss to account for, as I never had paid any attention to the solvent property of camphor: but, since the perusal of Dr. Percival's paper, I can no longer doubt it was owing to this property, that the change above-recited took place. May we not suppose, that the reason why this change did not occur sooner was, because the aqueous particles contained in the opium prevented the action of the camphor, until their evaporation was completed?

The

The trials made on different substances, joined with camphor, were as follow :

I. Ten grains of the purest myrrh were triturated with two grains of camphor, and an ounce of distilled water added *gradatim*.

II. Ten grains of myrrh of equal purity*, without any camphor, were triturated with one ounce of distilled water, gradually poured on.

The result of these two experiments was precisely the same as mentioned by Doctor Percival. Both mixtures for the first three days were exactly alike : on the fourth, the simple mixture was evidently more watery near the surface, than that with the camphor, which retained its uniform milky appearance throughout. Very little sediment was deposited in either of the phials ; but the sediment in the camphorated mixture was finer, whiter, and in less quantity than the other.

* Particular attention was paid to the choice of the myrrh used in this experiment. One of the purest tears that could be picked out from a large parcel was selected, and divided into two equal parts.

III. Ten

III. Ten grains of balsam of Tolu, with the same quantity of camphor, triturated first separately, then together, became in a short time very soft; the mass, after being formed into a bolus, was put into a chip box. In two or three days it had liquefied so much, as partly to exsude through the crevices in the bottom of the box; and appeared like common treacle; a small quantity of faeces, (the impurity of the balsam) being deposited.

IV. Ten grains of balsam of Tolu were well triturated with only two grains of camphor, until moderately soft. Lest it might be suspected that heat, arising from the briskness of the triture, should contribute to soften the mass, cold water was poured *gradatim* on the mixture. This addition of cold water did not appear either to retard, or promote the solution: the trituration was continued until the mass was so far softened as to be like a thin paste, or mucilage, which (the water being poured off) was put into a chip box, where it spread itself at the bottom; and still retains a considerable degree of softness, tho' not so soft as when first put in.

V. Equal

V. Equal parts of gum benzoin and camphor, triturated together, and formed into a bolus, soon lost the round form, liquefied, and spread at the bottom of the pill-box, acquiring a considerable degree of transparency.

VI. A pill made of camphor and gum guaiacum, of each ten grains, was very soft at first: the pill was flatted after it had lain in the box for some hours, but did not entirely lose its form; nor did it remain quite so soft as it was when first formed.

VII. G. Sagapenum and camphor, ana. p. æ. were next in degree of softness.

VIII. Equal parts of gum mastich and camphor lost the pilular form, and spread at the bottom of the box.

IX. Camphor and gum ammoniac ana. gr. x. were nearly as soft as the former, and retained the same degree of softness for a long time.

X. Camphor and sanguis draconis were next.

XI. Ten grains of myrrh, with only two grains of camphor, were rubbed together until moderately soft: when worked between the fingers, the mass appeared like good moist muscovado sugar. It crumbled, and was with difficulty made into a bolus, leaving an oiliness on the fingers. The bolus was found next day a little flattened, and had lost its softness in some degree.

XII. A pill of equal parts of camphor and asafœtida retained its round form, remaining moderately soft.

XIII. Camphor and olibanum, p. æ. soft at first, became very hard.

XIV. Camphor and gamboge, of each ten grains, after being rubbed together a long time, still remained in the form of a dry powder: but, the powder being put into a pill box, was found in three days to have
coalesced,

coalesced, and was so soft as to be formed into a pill without crumbling.

XV. Gum arabic and gum tragacanth, finely powdered, were not acted on by camphor.*

To whatever purposes in pharmacy or chemistry, a knowledge of the active powers of camphor on certain resinous substances may hereafter be applied, there is, in the pharmaceutical practice of the present day, one instance at least, wherein it may perhaps be found useful.

The camphorated julep of the late and present London Pharmacopœias, is thus made :

“ Take of camphor, one dram, double refined sugar half an ounce, boiling water one pint. Rub the camphor first with a little rectified
Y 2 spirit,

* The boxes, &c. containing the different subjects of the above experiments, were produced before the Medical Society when this paper was read.

spirit of wine *, then with the sugar; lastly, add the water by degrees, and strain the mixture."

If it be required to give little more than the *flavour* of the camphor, to the mixture, this formula may answer well enough. But if, on the contrary, the practitioner places his chief confidence in the camphor, he must rather prescribe it in the form of a bolus or pill, which may in some particular circumstances, either through the patients dislike to these forms, or for other reasons, be objected to: for should he expect effects from the camphor, which enters the composition of the julep, as now directed, on a supposition that it ought to contain the whole quantity prescribed, which is three grains, and three fourths of a grain to an ounce, he will be egregiously disappointed: because, as Dr. Lewis has observed, "part of the camphor will exhale, unless an extraordinary deal of care is taken, upon the affusion of boiling

† The new edition of the London Pharmacopœia specifies the proportion of sp. vin. rect. to be ten drops for the above quantity.

water; and part will remain upon the strainer*.”

In order to ascertain how much of this substance may be reasonably supposed to enter the camphorated julep, I prepared eight ounces of it, according to the new pharmacopœia, with all possible nicety and exactness, giving all the fair play that I could, to the camphor. I then filtered the mixture through a piece of paper, accurately weighing one dram. Sixteen hours afterwards, I weighed the paper, then *perfectly dry*, and containing only the camphor, left behind by the water. The weight of the whole was now one dram and 25 grains; so that there remained on the filter, 25 grains of camphor out of half a dram: and if we allow but a single grain for what might have exhaled in the time of preparing the mixture, and in the sixteen hours drying, the remaining proportion is only four grains, which is but half a grain to each ounce of the mixture, instead of three grains and three quarters.

* Lewis's Dispensatory, chap. viii. p. 609.

I then took four grains of myrrh, and triturated them with four grains of camphor, adding by degrees an ounce of common water; which gave a mixture, perfectly smooth, milky, and uniform.

This, I attempted to pass through some Dutch paper, such as the pill-boxes are packed in; which is more porous than the common filtering paper, but after standing sixteen hours, not more than one third had passed the strainer, which, with what remained in the paper, continued as perfectly milky and uniform as at first; the latter having deposited very little sediment; and that which had gone through, none at all. The paper, after being thoroughly dried, was something less than one grain heavier than at first.

It will not then, I presume, be deemed an unfair statement, to say, that in this latter process, the whole quantity of the camphor employed, is uniformly suspended in, nay, united with, the aqueous fluid, by the medium of the myrrh; for, if any separation were to take place, we might surely expect the camphor

to arise to the surface of the vehicle, and not be deposited at the bottom; in this experiment too, there was a greater proportion of camphor, by a quarter of a grain, to an ounce of water, than is directed in the camphorated julep.

Hence it is evident, that the advantages of uniting camphor with an aqueous fluid in this manner, must be far superior to the usual way: for, if so much of the camphor is preserved in this method of preparing it, will it not be an object of importance, where the physician places his chief dependance on that drug, and is at the same time under the necessity of exhibiting it in a liquid form, to prescribe it in combination with the gum resin herementioned, rather than adhere to the old method, where so much of the camphor is demonstrated to be lost? If it be objected, that myrrh may not always be admisible in certain cases where camphor is required; yet when it is considered that the former is by no means so active a medicine as the latter, the small quantity employed, merely as a bond of union, being only equal
in

in weight to the camphor, can afford little room for objection; but I am persuaded, that in most cases it will rather be considered as an improvement to the efficacy of the medicine, than any disadvantage*.

A R T I C L E XXIX.

History of a Case of Cicuta, in a Letter to Mr. JOSEPH HOOPER, F. M. S. by his Brother Mr. JOHN HOOPER, of Reading, Surgeon, and F. M. S. with two additional Communications by the same.

AS nothing contributes more to the advancement of medical knowledge than the faithful relation of facts, I beg leave to

* Gum amoniacum and asafetida were afterwards submitted to the same trials as the myrrh; but though both these concretes are by themselves easily miscible with aqueous fluids, yet in the present experiments, the camphor, although only in the proportion of one half to the gums, entirely prevented their mixing with water; nor did the assistance of rectified spirit of wine avail in a second attempt to procure a milky and permanently uniform fluid, from a combination of either of these gums with camphor.

submit

submit to your notice, and that of the Medical Society of London, the following case, wherein the good effects of the cicuta were very manifest.

Thomas Carden, a servant of mine, aged between sixteen and seventeen years, was in the beginning of December 1786, seized with a fever, which continued with irregular intermissions near four months. About the middle of the same month he went to his native home upon a rising common, but he grew no better; on the contrary, after having been there a few days, he experienced the addition of another complaint, a most distressing sickness with reachings, which gradually increased upon him, more or less, till towards the end of April, 1787, amounting in that month to, from thirty to near sixty times a-day, and he had as often inclination for food, which most times he indulged himself in; yet that food (as he expressed himself) did not seem to go into the stomach. It went no further than to its upper orifice, where it made a stand till the whole of the œsophagus

œsophagus was filled. In this state it did not remain long, as it was soon thrown up again with tolerable ease. But when all the food was come off, his reachings became very painful to his stomach, which now, in its turn, threw up what little acrid juices it contained. He was so fatigued one time with these severe conflicts, that he fell apparently lifeless on on the floor, and continued so half an hour. His mother, thinking he was dead, called in some of the neighbours to lay him out. He complained night and day of a burning sensation in his stomach, and few days escaped without some intimation of aguish paroxysm. He grew weaker daily, and the least bodily exertion encreased his sickness. He was not confined, but crawled into the common most days.

In this distressing case, what could be done! Every usual remedy was tried. Saline draughts, cortex peruv. fœtid gums, chalybeats, opiates, &c. &c. I procured him the advice of a physician of very extensive practice, who prescribed to no manner of purpose.

pose. In short, it would be almost endless to enumerate the variety of medicines which the poor lad took without murmuring.

Almost discouraged from teasing him with more fruitless attempts, and ready to consign him to his fate, it occurred to me, that possibly the cicuta might have a more favourable chance; accordingly I gave him at first only one grain of the extract night and morning, for two or three days. His sickness abating, I gradually increased the dose to four grains three times a-day. His reachings now were amazingly appeased, and when he had taken it three weeks, his complaint totally left him, though, for security against a return, he continued it for four or five weeks longer, gradually diminishing the dose.

That his disorder was put to flight by the cicuta, I am convinced, not only from his amendment on taking it, but likewise from having observed, that if at any time he happened to be out of it, or, in other words, if his box was empty, he was sure to feel a return of his sickness, which was as surely repressed

repressed upon my sending him a fresh supply.

It would be perhaps unfair not to remark, that during this course, he took occasionally at night two or three aloetic chalybeate pills, in case of costiveness; but it is not likely that these could have effected the cure, as he had long used them previous to his taken the cicuta. He is still in my service, and remains well.

Such have been the happy effects of the cicuta in the above complaint; and although they may not have sufficient to establish its reputation, yet possibly may tempt the practitioner to use it in similar instances.

Agreeable to your request, I send you a further account of the *lusus naturæ*, which I mentioned some time since.

On the 21st of November 1782, a patient of mine was taken in labour two months before her full time; and in a few hours I delivered

livered her of a child of the usual size for that period. It was living, and struggled for about half a minute, when it died. It was well formed except the head, the appearance of whose forehead was similar to that of the occiput, with scarcely any vestige of a face, no eye-brows, or eyes, (where they should have been) or nose; no mouth, but in its place an orbit enclosing two eyes; at first I took them only for one, but on a narrower inspection, I could discover two joined together; they stood very prominent from the orbit. Above this was suspended a substance, whose form was not much unlike a penis of that age; but I could not perceive either glans or prepuce. From the lower part of the orbit, hung by a slender filament of about one-third of an inch long, another fleshy substance, the bigness of a small pea. No chin nor ears in their natural situation, but something like ears inverted, &c. joined together in the neck, close under the maxilla inferior. The sex very obscure, having a kind of wart on the superior part of the pudenda.

I have

I have preserved the fœtus in spirits, but the eyes are changed almost white, from the action, as I suppose, of the spirits upon their coats and humours.

From the above description it is obvious, that nothing could be taken into the stomach ; this is therefore an additional proof, that the growth of the fœtus has no dependance from that quarter.

The mother does not remember any accident or particular circumstance that befel her during her pregnancy.

I send you likewise the following case of an obstinate ophthalmy cured :

A delicate widow lady, of between twenty and thirty years of age, healthy in all other respects, was afflicted, for near two years, with an inflammation in her eyes, attended with excoriations upon the internal edges of the eye-lids.

After

After having pursued a variety of prescriptions in London to no purpose, she came to Reading, in hopes that the change of air might afford her some benefit; in this however she was disappointed, and asked my advice. I did her no service; and she returned to Westminster, where a famous oculist promised a cure. He blistered her eye-lids, put her to great pain, without being one jot nearer a cure. Thus tired out, she was determined to try a remedy, which she had for some time been thinking of, from a supposition, she said, that her disorder had for its cause a bilious habit, she therefore took a wine glass of the juice of china oranges three times a-day, besides which she drank daily at her meals lemonade, containing the juice of two lemons. She soon found the happy effects of this remedy, and in three months was perfectly cured. She would have continued it longer, had it not caused a painful sensation in her stomach.

It is now more than three years since she discontinued the use of it, and has had no return of her complaint.

ARTICLE

A R T I C L E X X X .

A Case of suppression of Urine, occasioned by an enlargement of the Prostrate Gland. With some brief general Strictures on the use of the Male Catheter; respecting both the Structure of the Instrument, and the Mode of introducing it; by JAMES WARE, Surgeon, and F. M. S.

Read September 8, 1788.

A Gentleman, residing a little way out of London, about the age of seventy, had, for many preceding years, been subject to pains in his back; accompanied with various other symptoms, which strongly indicated a disorder in the urinary bladder. Under several violent attacks of these complaints, no small relief had been obtained from the use of medicines prescribed, chiefly, by his apothecary, Mr. Adams. But, in August 1785, medicine failing of its former success, and a suppression of urine having taken place, and continued

continued for twenty-four hours, it became necessary to call in some surgical assistance, and I was desired to attend. I did not find that the belly of the patient was much swelled, as might have been apprehended from so long a stoppage, nor did he complain of any great degree of pain. My object was to open the natural passage, and draw off the urine. For this purpose, I first attempted to introduce a bougie, but was not able to carry it further than to the neck of the bladder. Catheters of various sizes, and having different curvatures, were next applied; but here also I was baffled in every attempt I made; nor was the use of these instruments followed with any other effect, than a copious discharge of blood from the urethra, in a continued stream, for many minutes. This it was not in my power to prevent; though I was particularly careful to avoid force in entering the catheters, and to introduce them in as gentle a manner as possible. At first sight of the discharge, I was led to think that some urine might be mixed with the blood. But in this I soon found myself mistaken, for when it had stood only a short time, the

whole coagulated into one mass, which afterwards regularly separated, in the usual way, into serum and crassamentum; the former of which was very small in proportion to the quantity of the latter. Still I was not without some hope, that the loss of blood from the neck of the bladder, might have proved beneficial, by abating the inflammation, and thus taking off the opposition to the passage of the urine; the happy effect, which I had known it, not unfrequently, to produce in similar cases. I judged it necessary, however, to advise the further measures of opening a vein in the arm, injecting a clyster, putting the body into a warm bath, and taking oily opening medicines, to be repeated often; and these several methods to be used in succession, as soon as convenient, in case the obstruction remained.

All this was regularly complied with; and as the patient lived at some distance from me, I heard nothing more of him for the space of a week, from my first attendance. I was then informed, that, though he had continued as easy during that time, as when I saw
him,

him, all had been found ineffectual to procure the smallest discharge of urine; that, in consequence of this, his belly was then much swelled; and he appeared to all around him to decline so fast, that it was thought he could not survive many hours. I immediately went to him, and made another attempt to pass the catheter, but with no more success than before. On introducing my finger into the rectum, I found that the prostate was enlarged; but I was still unable, even with the assistance afforded by the pressure of the finger on that part, to procure an entrance for the catheter into the bladder. The patient was then averse to any further operation, and was indeed become so weak, that I could not think of proposing it. He lived two days longer; during which, tho' he was always uneasy, he yet did not once shew signs of violent pain.

The day after he died, I was desired to open the body; and readily embraced the opportunity it offered, of more fully ascertaining the nature of the case; concerning which

I could not but be sollicitous to obtain further satisfaction.

I began with a repetition of the attempt to introduce the catheter, in the usual way, through the natural passage of the urine; but I could not now carry it any further than I did when the patient was living. The apex of the catheter seemed to advance, however, upon my pressing its handle with a small degree of force; and upon my increasing this force, which in the dead subject I was not afraid to do, the instrument made its way into the bladder; when four pints of urine were drawn off. I then proceeded to open the cavity of the abdomen; the contents of which appeared perfectly sound. Upon introducing my hand into the pelvis, I felt a large stone in the bladder; and, on examining further, I found that the prostate gland was enlarged to a very great size. I made an opening into the upper part of the bladder, and extracted the stone. It was of an oval shape, and nearly as large as a hen's egg. After this, I again introduced the catheter thro'
the

the urethra, and instantly carried it into the bladder, through the perforation I had before made into it with this instrument. I carefully dissected the bladder and prostate from their connections in the pelvis; and removed them, together with a small portion of the membranous part of the urethra. Having the diseased parts now fully before me, I made an incision through the prostate, in order to examine the state of the urethra, at the part where it enters the bladder, and where the resistance was made to the passage of the catheter. This instrument I found had pierced through the urethra, about a quarter of an inch beyond the caput gallinaginis and had passed nearly two inches through the substance of the enlarged prostate, before it entered the bladder*. The prominence of the prostate was so great, that it projected above an inch and a half, in nearly a perpendicular direction to the membranous part of the urethra, at the place where the catheter had pierced it. This gland had no appearance of being gangrened, nor had it undergone any change

* See Fig. 1, on the plate annexed.

of colour ; yet, notwithstanding this, its external aspect, it must certainly have acquired a considerable degree of morbid tenderness, as its admitting the blunt end of a large catheter to pass through it, was, I think, no otherwise to be accounted for. The caput gallinaginis had its usual size and appearance ; and round it were a great number of lacunæ. Some of these were of considerable size ; and one in particular, besides the perforation through which the catheter passed into the bladder, was so large, that I imagine, either a bougie, or one of the catheters which had been introduced to draw off the urine, must have been carried into it, and dilated it.

THE case I have now related is one, among many other instances of disorder to which the human species are liable, which it seems beyond the power of art to relieve. The enlargement of the prostate, in this instance, was indeed, most probably, occasioned by the stimulus, which a stone in the bladder excited ; and therefore, if the existence of the
stone

stone had been ascertained at an earlier period, its removal might have prevented the fatal effects that followed. Many instances, however, have occurred, and several are related by authors, of similar affections of this gland, without any such cause, and indeed without any known cause whatever; and in all such cases, it merits enquiry, whether, if the catheter cannot be introduced through the natural passage, it may not be safely carried through the enlarged gland, in the way it was introduced, after death, in the case here related?.

But it is not my design, at present, to dwell either upon the nature or treatment of this disorder; and, in what remains of this paper, I shall confine myself to such remarks as have occurred to me, and may not be undeserving attention, on the shape of the male catheter, and the mode of introducing it.

This is a subject of no small importance; since, in suppressions of urine, the catheter often supplies the only remaining means for the preservation of life. Various impediments
to

to the introduction of the catheter may undoubtedly exist, which no skill or dexterity is able to surmount; and I believe it will be admitted, that one of these has been described in the preceding case. It is nevertheless most requisite, in all cases, that a careful attention be given to the shape and size of the catheter; and, in the use of the instrument, attention should also be given to the structure and curvature of the urethra; it being no less apparent than certain, that the probability of succeeding, however small in itself, must always be less, when the circumstances above pointed out have not been properly regarded.

In the first place, it appears to me not a little extraordinary, that the curvature of the catheters, which are represented in many books of surgery, and also of those which are usually sold at the instrument-makers, should differ so much, as I find they do, from that of the sound, that is used in searching for the stone. The greatest difficulty that occurs, both in searching, and in drawing off the urine, is in the introduction of the proper instruments;
and

and if, as a modern writer, of acknowledged merit, informs us*, the curvature of the sound he represents, is taken exactly from the natural curvature of the urethra, and is most proper for its introduction into the bladder; that curvature, I should imagine, would be most suitable for the catheter also. This instrument, however, is, in general, curved very differently from sounds; and the catheter, Mr. Bell himself represents in Plate 15, Vol. ii. is curved quite different from his sounds, represented in Plate xii. of the same volume. The curvature of the staff, for directing the gorget into the bladder in Lithotomy is required to be large; and, perhaps, larger than that of the other instruments I have mentioned, in order that it may prove a more certain guide, in conducting the knife through the integuments in perinæo. But this is a use to which neither sounds nor catheters are applicable; and therefore, unless the largeness of the curvature renders the introduction of these instruments into the bladder more easy, it does not appear requisite in either of them.

* See Bell's *System of Surgery*, vol. ii. p. 31.

It may probably be urged, that the sound requires a large curvature, in order that a large portion of it may be introduced into the bladder; and thus, in searching, when the stone is small, the chance of striking on it may be greater, than when the curvature is less. But I am very doubtful, whether a larger portion of the sound can be introduced when its curvature is large, than when it is small; and, besides this, the stone naturally falls to the bottom of the bladder, and this is a part of it which may be reached without any extraordinary curvature of the instrument. Besides which, the apex or inner termination of the sound admits of considerable motion in the bladder, by raising or depressing its handle; and, therefore it may, by this method, in most cases, be carried into contact with any body that is lodged in it.

It is, however, necessary for me to add, that as the curvature of the sound is sometimes too large, that of the catheter, on the contrary, is often made much too small; and I have several times been disappointed in the attempt to introduce such an instrument,
when

when I have afterwards succeeded with a catheter, whose curvature was larger.

The translator of *Monf. Le Dran's Treatise on the Operations of Surgery*, observes, page 219, "that the curvature of the catheter should be proportionable to the make of the patient; and that this may be guessed at sight." I am at a loss to understand the meaning of this sentence, if any thing more is intended by it, than that the curvature of the catheter should be varied according to the size of the person on whom it is to be used. And this appears to have been the meaning of *Le Dran* himself, since the original words, "*grandeur du malade**," may, I think, more properly be translated, "size of the patient," than "make of the patient." The curvature of the urethra, in persons whose size is similar, is, in general, I believe, nearly alike; and when the size varies, as in the case of a boy and a man, I am disposed to think, though the several parts are larger in the latter than in the former, that the curvature is still simi-

* *Traité des Operations de Chirurgie*, par H. F. le Dran. p. 288.

lar. Heister seems to have been of this opinion, and, in plate xxvii, he gives a representation of a number of catheters, differing in length and thickness; but in all of these the same curvature is preserved in proportion to their respective lengths.

Some surgeons have shaped their sounds according to the shape of the large curvature of the urethra; but this does not seem to furnish a certain rule for the construction either of sounds or catheters; since the difficulty that occurs in introducing them does not arise from the want of such conformity, but from the opposition these instruments meet, when their apex, or inner termination, reaches the end of this curvature, and has to pass a small curvature of the urethra, which lies under the symphysis pubis, at the entrance into the bladder.

Le Dran observes, that the size of the catheter should be suited to the size of the urethra; and that this is to be determined by the size of the orifice in the glans penis*.

* *Traité des Operations de Chirurgie*, par H. F. le Dran, p, 288.

I have, however, often found the orifice of the urethra in the glans penis much contracted; and yet the urethra, in its whole length afterwards, has been of its full natural size. Le Dran adds a remark, which I believe is universally admitted to be just, "that a pretty large catheter always passes better than a small one."

As to the length of the catheter, these instruments are generally made much shorter than founds. In the latter, indeed, the additional length affords a considerable advantage to the surgeon, enabling him to move it about in the bladder, in search of a stone, with much more ease than he could do, if it was shorter. But the necessity is not the same, in the use of the catheter. Notwithstanding which, if the length of that instrument was increased to about twelve inches, according to the representation of it in Fig. 2. on the plate annexed, which is more than an inch above the ordinary length, I believe the facility of using it, would be in no small degree increased.

The

The figure, just referred to, is taken from an instrument which I have long made use of myself; and have found it so often to succeed, where others of a different size and curvature have failed, that I beg leave to recommend it to the notice of this society.

With regard to the posture of the patient during the operation, I have performed it when this has been very different. The most convenient, I think, is, for the patient to stand, with his back against the wainscot of the room, and the surgeon to be seated before him. If, however, the patient is very infirm, the operation may be performed either in a sitting or more reclined posture, as he shall find to be most easy.

The mode in which I pass the instrument, is as follows :

Being first thoroughly oiled, I introduce it into the urethra, with its convex part uppermost, and carry it as far as it will pass, without using force. It is the practice of some surgeons, in doing this, to draw the penis forwards over the catheter; and Mons.

Le

Le Dran observes *, “ that the great art in searching,” and I presume he must mean, there is the same art in drawing off the urine, “ is to keep up a kind of intelligence between the hand that supports the penis, and the other which directs the instrument.” He adds, “ that they ought to act so in concert, that, alternately, the catheter may be thrust into the penis, and the penis drawn forwards upon the catheter.” In this method, I have repeatedly attempted to introduce the catheter; but, notwithstanding all the care I could use, my attempts have, in general, been without success; and I have observed, in various instances, that the attempts of others, in the same way, have been equally unsuccessful. I do not mean, however, by this remark, to convey a doubt of Le Dran’s success, according to the method he has described; but since I, and others, have not been so fortunate, as to meet with similar success, I hope I shall stand excused, if I propose a method somewhat different, and which, in my practice, has been more successful. I therefore add, that in a great number of instances, I have scarce once found it necessary to touch the penis,

* *Traité par le Dran, p. 290.*

after the apex of the catheter has been introduced into the urethra: nor will this, I think, appear improbable, when it is considered, that the anterior part of the urethra, is the only part which can essentially be affected by drawing the penis forward; and this affords no obstacle to the passage of the instrument, unless there is a stricture in it. The posterior part of the urethra, through which, alone, it is difficult to pass the instrument, can neither be straitened nor smoothed by this part of the process. But, besides the objection I have now mentioned to the practice of drawing the penis forward, I shall presently have occasion to observe, further, that the confinement of the catheter, necessarily occasioned by it, is not only unnecessary, but, in a subsequent part of the operation, is also liable to be injurious.

When the catheter has proceeded as far as it will pass, without using force, I turn it slowly round, so as to bring its concave side uppermost; and, in doing this, I make a large sweep with the handle of the instrument, and, at the same time, keep my attention steadily fixed on its apex, or inner termination;

mination ; which I take particular care, neither to retract, nor to move from its first line of direction.

In this part of the operation, as well as the former, I differ considerably, both from the directions and practice of many eminent surgeons. Mr. Bromfield*, in particular, directs, when the apex of the sound meets with resistance in perinæo, that it be turned round, not *slowly*, as I have directed, but *suddenly* ; and, though I do not find the same direction so plainly given by other surgical authors, when writing on this operation, yet this is the mode I have generally seen surgeons pursue in the performance of it. Sometimes, when the operators have been experienced men, like the gentleman above-mentioned, it has, without doubt, succeeded in this way ; but, in general, and especially when the surgeon has been inexperienced, the operation has failed ; and, even with the finger in the rectum, it has not always been rendered successful.

* See Bromfield's *Chirurgical Observations*, vol. ii. p. 200.

When, again, the apex of the catheter reaches the neck of the bladder, if it does not easily pass in on depressing the handle, Mr. Sharp * recommends to withdraw it a quarter of an inch, and then to introduce the finger into the rectum to raise it; by which method he says it will seldom fail to enter. For my own part, I have rarely had occasion to introduce my finger into the rectum, in performing this operation; and in the direction above given for introducing the instrument, I have mentioned, particularly, that its inner termination should not be permitted to retract, when it reaches the arch of the os pubis. I beg to dwell upon this circumstance, believing it essential to the easy introduction of the instrument. On the contrary, whenever I have been inattentive to it, and have allowed the catheter to fall back, I have always been under the necessity of entirely withdrawing it.

But the part of the operation of introducing the catheter, on which, I believe, its success chiefly depends, is the preservation of the apex of the instrument, at the time of turning

* See Sharp's Treatise on the Operations of Surgery, p. 81.

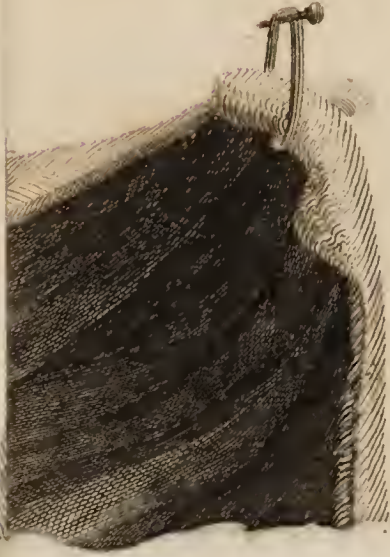
its concave side uppermost, in the right direction of the urethra; so that it may not then press against the sides of this canal. In order to make my meaning better understood, I will suppose a person to press the apex of a catheter, with its convex side uppermost, against his finger, or any other resisting body. If he turns the instrument suddenly round, so as to bring its concave side uppermost, he will find, unless he uses great care, that its apex will be moved from its place, and take a new direction, different from that which it followed before he made the turn. A similar effect takes place when the instrument is in the urethra; and if in that case, on the turn of the instrument, its apex, instead of pressing straight forward in the urethra, should take its direction against the sides of the canal, no additional pressure, afterwards, can make it advance. For this reason, instead of turning the instrument suddenly, in the way recommended by Mr. Bromfield, I always make the turn slowly, and give the handle of the catheter a large sweep round; and this large sweep of the handle is accomplished much more readily when the instrument is unconfined, than it can be when the penis is drawn

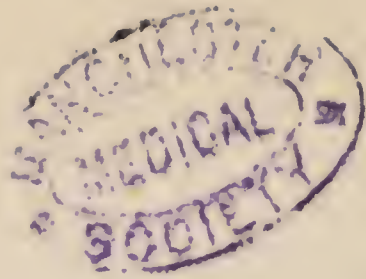
forwards over it, in the way recommended by *Monf. Le Dran*.

When the catheter is turned, it must still be pressed onward, and its handle at the same time be gently depressed. By this method it will be made to enter the bladder, and upon removing the stile, the urine of course will be discharged through it.

I scarcely need mention, that previous to the use of a catheter, a bougie should be introduced. This alone, in many instances, has been sufficient to procure the discharge of the urine. I have also not unfrequently succeeded, in drawing off the urine, with a hollow bougie made of elastic gum. But notwithstanding these successes, cases will still often occur, which the catheter alone can relieve. Every hint, therefore, that may tend to render the introduction of this instrument more easy and certain, will, I flatter myself, be thought not unworthy the attention of this society.

Pl. 6.





REFERENCES to the PLATE.

Fig. 1. Was taken from a preparation of the parts affected by the disorder, described in the preceding paper.

A. Part of the inside of the urinary bladder.

B. C. D. E. The inside of the enlarged prostate gland

F. G. A probe carried through the perforation made in the prostate with the catheter.

H. The caput gallinaginis perforated by a great number of lacunæ, and surrounded by many others.

I. K. The orifices of the ureters.

L. M. The outside of the prostate.

N. O. The outside of the bladder.

Fig. 2. The catheter recommended.

A R T I C L E XXXI.

Case of a Scirrhus œsophagus, by Wm. FARQUHARSON, of Edinburgh, M. D. and C. M. S. Fellow of the Royal College of Physicians of Edinburgh, and Corresponding Member of the Society of Scotch Antiquaries.

Read December 3, 1787.

THE constricted œsophagus, one of the most deplorable diseases to which the human body is subject, though not uncom-

mon, has been so seldom described by medical writers, and is so little known by the generality of practitioners, that it may be deemed a new disease.

Having been hitherto found incurable, except in an early stage, I flatter myself a minute and accurate history of it's first symptoms and progress will not be unacceptable to the public; more especially as its beginning is too slight to give the patient any alarm, or be thought a proper object of medical attention.

With a view to the above, I lay the following case before the Medical Society, and beg leave to assure them that I can promise for the authenticity of the facts as they were taken from the patient's own mouth, and minuted down at the time; and I hope a proper attention to accuracy and minuteness will excuse the deficiency of style and arrangement.

June 10, 1787. William Glen, aged 44, naturally delicate, of a slender make, remarkably pale complexion, very weak and extremely

tremely emaciated, consulted me for a disorder in the œsophagus, about half way between the throat and stomach, which rendered him perfectly incapable of swallowing solid food of any kind, and even caused the most liquid food to be rejected, after remaining some hours in his throat.

On examination, I found that he had laboured under this complaint, though in a less degree, since the beginning of January, 1787.

He gave me the following history of his case :

January first, he was seized with a cold and slight fever, to which he was very subject, this confined him to his bed for ten days. When he began to recover, he felt a slight difficulty of swallowing, which he attributed to wind meeting the food in it's passage to the stomach.

For this supposed windy complaint he consulted a druggist of this place, who ordered

dered him some hiera picra infused in brandy, a wine-glass full to be taken twice a day. This increased his complaints so much, that he left off using it in less than a week, and took no more medicines till after he consulted me. It will not be improper to observe here that this patient had never found spirits agree with him; but since January last they increased his sufferings very much: he was temperate in the use of every thing except drinking tea and smoking tobacco.

From this time he grew daily worse, so that by the end of February, every bit of his solid, and part of his liquid food, was rejected, after remaining four, five, or six hours, in the œsophagus. From the time of his swallowing any food to the time of its being rejected, he was very uneasy. He complained of a sense of weight and fullness in his breast and a violent pain in his back, nearly opposite to the cardia; these symptoms went off after the food came up.

He was now reduced to the necessity of subsisting entirely on the most liquid food
taken

taken often, but in a small quantity at once; though he could still swallow fresh butter pretty well, and had a great desire for it, yet his poverty prevented him from procuring a sufficient quantity.

As his food was now seldom retained more than an hour or two at most, and was thrown up in greater quantities than formerly, he lost his strength and flesh so much, that he began to be alarmed, and for the first time thought himself in danger.

June 10th, he consulted me. I immediately suspected the cause of this disorder; and though I had very little hopes of curing him, as the disease was so far advanced; yet that I might not seem to abandon him to his fate, I resolved to give mercury a fair trial, which was the only medicine I had ever seen of use in the like circumstances. As I judged it necessary to produce a gentle salivation as quickly as possible, I ordered him three grains of calomel, and one grain of opium, every night at bed time, with a laxative occasionally, to obviate costiveness. At the
same

same time, I ordered him to be fed with milk, or rich broth, a good deal of fresh butter, and a little wine daily.

In about ten days he began to spit gently, and in about a month more I was agreeably surprized to find him so much relieved, that he could swallow liquid food without difficulty, and got over even solids, when cut small and well chewed: neither solids nor liquids were now rejected. The pain in his back, and sense of weight and fullness at his breast, had gone off, and he began to gather flesh and strength, so that I had every reason to look for a perfect cure.

As he now salivated freely, I ordered him to omit his medicines every other night, to guard against cold, to live on the most nourishing diet he could procure, and to encrease his ordinary quantity of wine. However, he unluckily exposed himself in a rainy day, and got a rheumatism in his thigh; this, and the idea of his being out of danger, made him give up his medicines entirely, and I heard no more of him till the 25th of September,

tember, when he was admitted into the General Dispensary of Paisley.

Mr. White, one of the surgeons examined him with me. We found things had taken a surprising turn for the worse. All his complaints had returned with greater violence than ever; his inability of swallowing even liquid food had increased, and every thing he took was rejected, in a shorter time than formerly, with a particular gurgling noise. He had pain as well as the sense of weight and fulness at his breast, and the pain of his back was now constant and more severe. The dilatation of the upper part of the œsophagus was plainly perceptible; he was extremely weakened and emaciated. He never had a stool without a clyster or a laxative, and it was with difficulty he got down as much of the laxative as kept his body open. His pulse was regular, but weak, and his breathing was not at all affected. He informed us, that his complaints had returned in a short time after quitting his medicines, and immediately after his salivation ceased.

In this situation little could be expected from medicines; however, we ordered the calomel and opium to be repeated, and $\text{ij}\frac{3}{4}$ of mercurial ointment to be rubbed into the pained part of his throat every night at bed-time; with some decoction of woods after it, and a laxative occasionally. We likewise ordered half a pint of wine, and a clyster of mutton broth daily. At the same time we gave particular directions about feeding him.

Notwithstanding all our endeavours, his disease gained ground daily, so that by the middle of October, every particle of his food was rejected in a few minutes, mixed with a great quantity of mucus and saliva. His weakness and emaciation were now so extreme, that he could not move off his back; and for some days before his death, he was generally in a state of stupor, unless he was spoke to; yet he still expressed a desire for food; and his breathing was not in the least affected, as the day before his death he slept with his mouth shut, and without a pillow in his ordinary manner. We now ordered the broth clysters to be repeated
thrice

thrice a-day, without any effect, for on the 27th of October he expired without a struggle, absolutely starved to death.

Leave being obtained to open the body, it was carefully examined by Mr. Thynne, one of the surgeons of the Dispensary.

The emaciation was extreme; not a particle of fat was to be seen, and even the muscles themselves seemed to be wasted.

On laying bare the œsophagus, we perceived about six inches of it, beginning a little below the pharynx, much dilated; and about two inches and a half from that to near the cardia, perfectly scirrhus.

On cutting it open, we found the coats of the dilated part much thinner than ordinary, the inner coat was extremely smooth, and perfectly free from ulceration. This part of the œsophagus contained a great quantity of mucus and saliva, with a little of the aliment, but no pus.

The scirrhus portion of the œsophagus was completely impervious, and afforded considerable resistance to the small blade of a probe scissars, with which it was cut open. The coats of this portion were imperceptible, being confounded in the scirrhus mass.

The stomach shewed no appearances of disease, only the coronary vein was uncommonly large, and much distended with dark coloured blood. There was a great quantity of a fluid in the stomach which appeared to be principally bile and mucus.

The intestines were much contracted, but otherwise in a natural state.

The liver, gall-bladder, pancreas, and spleen, were as usual.

The substance of the lungs was remarkably white, and the smallest ramifications of the veins appeared as if they had been filled with a black injection. Both lobes, but particularly the right, adhered strongly to the pleura.

The





The heart was not larger than that of a child six years old, yet it seemed perfect in all its parts, and the arteries and veins connected with it were of the ordinary size, but their coats were remarkably white and thin. There was no water in the pericardium or sacs of the pleura.

In the drawings subjoined to this case, I have endeavoured to give a representation of the diseased part of the œsophagus, of the natural size, both before and after it was cut open.

EXPLANATION of the PLATE.

- A. The œsophagus cut off a little below the pharynx.
- B. B. B. B. Dilated part of the œsophagus cut open.
- C. C. C. C. Scirrhus part of the œsophagus cut open.
- D. Œsophagus cut off a little above the cardia.

A R T I C L E XXXII.

History of a Case of incised Dropsy, with a Dissection, by AMOS WINSHIP, of Boston, Massachusetts, M. D. and C. M. S. in a Letter to J. C. LETTSOM, M. D.

Read March 31, 1788.

C. M. a young woman 34 years of age, began to have hydropic swellings of the abdomen, early in the year 1786. She had been intemperate for some years, and had, previous to this indisposition, been cured of the lues venerea. After the trial of powerful diuretics, and cathartics, diobstruent medicines without advantage; the paracentesis was performed by Dr. Cheever of this place, and upwards of four gallons of limpid water were discharged.

After this operation she improved in health, and gradually regained her strength and spirits, and had a return of regularity in the whole

whole animal œconomy; the urine in particular was discharged in its usual quantity and colour.

This healthy appearance was of short duration; in a few weeks the abdomen again tumefied; the accustomed evacuations were suppressed or irregular, and the operation of tapping was again had recourse to, and with similar advantages. She filled again with water, and was tapped the third time; in the beginning of October, the operation was again necessarily performed for the fourth time, which proved the last, for a fever and diarrhœa soon after ensuing, she died on the 14th of the same month.

The Dissection.

On commencing the opening of the abdomen, the first præternatural appearance was a collection of purulent matter, lodged between the oblique and transverse muscles; upon continuing the incision through the in-

teguments into the cavity of the abdomen, there gushed out an extremely fœtid fluid, intermixed with pus and coagulable lymph, in which numerous hydatides of the magnitude of an hazle nut were floating: after discharging this collection of fluid, which amounted to several gallons, we were surprized to find, that instead of the abdominal viscera, the whole anterior surface of the abdomen was occupied by a membranous cyst, which adhered firmly to the external coat of the peritonæum, extending from the brim of the pelvis, to the epigastric region, and which had contained the immense collection just mentioned; by its weight and magnitude, it had pressed the intestines into the upper portion, immediately against the diaphragm; the superior extremity of this cyst, with the posterior lamina of the omentum, having formed a complete septum, in a parallel direction with the diaphragm, making a kind of distinct cavity, which contained the principal abdominal viscera; but the colon escaping out of this cavity, took a direction in a right line, close to the vertebræ of the back, and under the anterior surface of the

great

great cyst, not dissimilar to the passage of the œsophagus through the thorax.

In removing this great cyst, the coat of which was about half an inch in thickness, of an appearance of concreted coagulable lymph, another cyst of the size of a child's head, was discovered, lying between the vesica urinaria and uterus; this second cyst was full of purulent matter, with a substance on the interior surface of its fundus, of a steatomatous appearance, combined with a quantity of hair full eighteen inches in length: the uterus was very little altered from the natural consistence and size: on removing it, a third cyst was discovered, lying between this viscus and the rectum, of about half the magnitude of the second cyst, containing pus, and a fatty substance intermixed also with hair; with the additional peculiarity of having its internal surface lined throughout with a lamella of bone which firmly adhered to the internal membrane, or tunic of the cyst. The hair found in both the cysts was of a light sandy colour, but the

hair of the mons veneris, and head of the patient was black.

I remark this more particularly, as the theory of the generation of hair is still obscure; the length of the hair, found in the two smaller cysts, lessens the probability of its originating from a foetus.

The bladder was become almost in a scirrhous state, and in some parts ossified; yet when the patient was relieved by tapping, she discharged urine plentifully, and with facility.

References to the PLATE.

Fig. 1. The hairy substance found in the second cyst.

Fig. 2. The appearance of the third cyst, with the hair projecting through its integuments.

Fig. 1.



Fig. 2.





ARTICLE XXXIII.

An Account of a remarkable Spasmodic Affection from the Puncture of a Pin, cured by the liberal Use of Laudanum, with Antimonial Wine. By THOMAS POLE, Surgeon, and F. M. S.

Read January 18, 1787.

A Young woman about twenty years of age, of a slender delicate form, clear fresh complexion, and of great irritability of the nervous system, but in perfect health, had the misfortune on the 22d of the 12th* month, 1786, to wound her right hand with a hair pin. The wound did not bleed, but immediately assumed a livid blackish colour, attended at first with numbness, which in about ten minutes was succeeded by sharp darting pains: the part soon began to swell, extending as far as her elbow, and the next day became red and inflamed, which continued to increase for eight days, when she came from the country to London for my advice.

* The months are mentioned by their numerical names,

I was aware that the great irritation might probably arise from a nerve being punctured, as the pin entered the ball of the thumb, and penetrated as far as the anterior part of the carpus, where the nerves are pretty plentifully passing to the fingers and thumb; I recommended her such medicines as I thought would tend to abate inflammation, gave *Ext. Theb. gr. j. omni nocte et urgente dolore.*

R *Ext. Saturn* ℥ij. *Tinct. Theb.* ℥iij.

Aq. Puræ ℥vss. *M. ft. lotio part. affectæ applicanda subinde.*

R *Sal. Carth. Amar.* ℥iij. *Syr. e Spin. Cerv.* ℥ss.

Aq. Menth. pip. simp. ℥viijss. *M. Capiat. coch.* iij
ad libitum.

From this plan she derived no relief. The inflammation continued to extend to the shoulder, with an increase of the pain, which proceeded up the neck to the head; all the fingers on that hand were contracted, but especially the two smallest. 1st of the 1st month 1787, took away six ounces of blood from the left arm, and repeated the lotion.

2nd. Gave *Pulv. Dover* ℥j. *Tinct. Cinn.* ℥ij. *Aq. Puræ.* ℥i℥. *ft. Haust.* and at bed-time, took the following draught:

℞ *Vin. Ant.* ℥j. *Tinct. Theb.* gut. xx. *Spts. Nitr. D.* ℥j. *Aq. Puræ.* ℥i℥ *M. ft. Haust.*

And used the following liniment on the arm affected.

℞ *Ol. Amygd. D.* ℥j. *Ext. Saturn* ℥ij. *Tinct. Theb.* ℥℥. *M. ft. Liniment.*

8th. Ordered *Ung. Samb.* to anoint her arm, which she thought mitigated the pain; she also took the following mixture,

℞ *Spir. Volat. Aromat.* ℥j. *Succ. Limon.* ℥ij. *Syr. de Mecon.* ℥℥. *Tinct. Stom.* ℥℥. *Vin. Antim.* ℥ij. *Aq. Puræ* ℥iij. *M. Capiat. Coch.* ij. *ter in Die.*

11th. This mixture was repeated.

14th ditto. Being three weeks from the accident, she complained of a corresponding pain in the left arm, answering to that of the right, and darting pains about her heart. The
complaint

complaint at this time took a favourable turn, and in about another week she was nearly relieved of all the pain and inflammation, and most of the swelling: the two smallest fingers still remained in a state of rigid contraction; which was entirely relieved by the electrical shock, frequently repeated; this was at the end of the first month, and on the first of the second, she went to work with her needle; after which in the night the pain and swelling returned with considerable violence: she applied to me the next day, when I again tried the electrical shock, and repeated it the following day, but without any advantage, and the increase of pain induced me to leave it off; a blister was now applied to the wrist.

d month 3d. one grain of *Opium* was given every night, increasing it to two grains, which did not procure her any rest, neither did the blister alleviate her sufferings. The arm was then bathed with *Tinct. Theb. et Ext. Saturn. p. æ.* which vesicated the surface without affording relief.

On the 8th instant had the additional advice of a surgeon of eminence, which was followed without the least success; and on the 11th, I attended to opium only, which I gave in pills, containing one grain each. She took two every four hours; and in two days increased them to three every four hours; and on the 14th, took four every four hours. She complained of a sense of tightness on her chest; her pains were now increased, and diffused over the whole frame, but more especially on her right side. The flexor muscles of the leg now contracted, the masseter muscle on that side was in considerable pain, with continual spasmodic catchings all over the body and extremities; but most of all in the right arm, which she moved with a sudden jirk, about forty times in a minute, with considerable force; had at times a chattering of the teeth, and for this day or two a short hacking cough, which was very fatiguing. Her pulse has been about 86 in a minute. Sleeps at best but about half an hour at a time, for about three times in the twenty-four hours. To day and yesterday costive, and has taken *Pulv. Jalap.* gr.x. in pills; has

has little appetite ; takes little else but beef tea and wine whey. Ordered her xxx drops of *Tinct. Theb.* with lx. of *Vin. Antim.* every two hours, and after taking it twice, slept an hour and a half. Dr. Lettsom and Surgeon Cline saw her to-day ; no alteration proposed ; but the addition of *Vin. Antim.* as above, to promote perspiration, which has had that effect.

15th. I visited her to-day with Dr. Lettsom ; has had at intervals about three hours sleep. Cough very frequent and troublesome ; convulsive motions much the same ; pain most considerable in the neck ; has had no evacuation from the *Pil. Jalap.* Now ordered her *Tinct. Theb.* gut. xliij. *Vin. Antim.* gut. lxxxvj. every three hours , and the pills were repeated. Whilst asleep, has had convulsive motions in her head and arms, which has not been before observed in her sleep. In the evening continued much the same ; has had some little sleep at short intervals.

16th. Pulse 94. Pains much the same. Catchings not so frequent ; had one stool after the space of three days. Cough much

as before ; has slept several hours at intervals through the night. Sense of tightness on her chest continues. Ordered her clysters of grewel with common salt, and to take 53 drops of *Laudanum*, with 106 of *Vin. Antim.* every three hours. In the evening, Dr. Lettsom saw her again, and ordered her a continuation of the drops, and a bolus, containing *Pulv. Cort. Peruv.* ʒi. *Tinct. Theb.* q. s. *ft.* bolus (iv *bol.* took ʒiij. of *Tinct. Theb.*) and in the drops and bolusses she takes 784 drops of *Tinct. Theb.* in twenty-four hours. She was evidently worse soon after he left her ; before she had taken his medicines ; general langour and debility increased ; spasms more frequent and violent, which rendered it impossible to count her pulse, even in the left arm ; the right leg much more convulsed than the left ; has had some sleep at intervals, attended with trembling of the extremities, or a quick kind of spasmodic action ; has had one evacuation since the clyster was administered.

17th. Had several hours sleep in the course of the night, and is considerably better

ter with respect to the general vigour of the constitution; cough and tightness on the chest much the same, as well as the spasms; complained of great pain in the right side of the neck in the night; has some difficulty in swallowing, owing to a sense of swelling in the œsophagus; no particular rigidity of the masseter muscles. An eruption has appeared on the face, neck and breast. Saw her again in the evening, when the symptoms were much increased; great languor and general debility; her ~~cough~~^{pulse} 108 in a minute; and with every cough her limbs were affected with a spasmodic, and very forcible contraction. Her tongue dry and brown in the middle, with a white line on each side; has had an hour and a quarter of sleep at one time to-day, and several other short sleeps of a quarter of an hour. Had one stool from a clyster, which was given her in the morning; difficulty of swallowing increased with a sense of foreness in the throat. Catchings more considerable in her sleep than heretofore, and the muscles of the face at times convulsed. Added ten drops of *Theb. Tinct.* and twenty of *Vin. Antim.* every three hours,

hours, which makes 864 drops of *Tinct. Theb.* in twenty-four hours.

18th. Visited her in the morning; find she has had several hours sleep during the night; not so languid and faint as last evening; has had no further evacuations from the intestines; ordered the clyster to be repeated. Her other symptoms much the same as before. Saw her in the evening; has had three or four clysters without any effect. Ordered her *Falap.* gr. x. complains of much pain on the right leg, and up to her head on that side; is more convulsed in her sleep, both in her limbs and the muscles of her face. Increased the *Tinct. Theb.* gut. x. and the *Vin. Antim.* gut. xx. she now takes 944 drops of the former in 24 hours, is exceeding languid and exhausted as at the two evenings past.

19th. Last night has had four hours sleep, and this morning two hours more; had one thin watery stool in consequence of several clysters being again repeated, her ~~pulse~~^{pulse} 112 in a minute. At my evening visit, found her again very languid; spasms still more troublesome
some

some whilst asleep; has had about three hours more sleep; have increased the *Theb.* to 100 drops every three hours; her bolusses repeated. Her intellects have all along been very clear, and her mind perfectly serene and resigned.

20th. Slept last night at intervals, about four hours, but little alteration in her symptoms; her strength in general diminishes; repeated the *Pil. Jalap.* had one considerable evacuation to-day in consequence; has spit up some bloody mucus, probably from the throat, owing to abrasion of the membrane, occasioned by such continual coughing. This evening I repeated her drops and bolusses, by the concurrence of Dr. Lettsom, who visited her with me again; and in order to be certain of the number of drops which she should take the next twenty-four hours, I took the pains myself to count them, which, with what the bolusses contained, was eleven hundred and seventy.

21st. Her langour increases; her catches seem less violent, but not less frequent than
than

than before; her cough changed, and is now rather a hacking or sudden convulsive check in her respiration, not easily described. Passes her water with great difficulty, and says she has not strength to force it away. Had about five hours sleep in the night.

22d. Last night took much less laudanum than her usual quantity, yet slept twelve hours in the last twenty-four. Her little strength seemed now nearly exhausted; the cough and ketchings are as frequent as before, but more feeble; she now complains much of a pain about the muscles of the jaw, and along the interior part of the lower jaw, as well as in her ears. Her throat is also sore; she takes less nourishment, and the spasm in her sleep more feeble. I now lessened the quantity of the *Theb.* from her present disposition to sleep.

23d. She sleeps much, and now only takes 70 drops of the *Theb.* every three, four, or five hours, as her sleeps admits, appears unexpectedly better; her cough quite gone, the catchings scarcely perceptible, and with much
less

less pain; her spirits revive from a state of depression and langour to a considerable degree of cheerfulness; her voice, which has been kept so low, as only to whisper, has become quite clear and shrill as in health; she took an inclination to drink some porter, which appeared to be of service to her.

24th. Did not see her till evening, found her still more recovered, and as great a cheerfulness as in health; she was scooping out a raw apple with her injured hand, and eating it without the least apparent difficulty, complains of less pain than yesterday, and desired to omit the opiates to night, which I agreed to.

25th. Slept tolerably last night, not quite so well as when she took the opiates; and says, she is not so free from pain, in her right leg and arm; still continues cheerful, and was able to set up to drink tea.

26th. Much the same as yesterday, except a diarrhæa, for which I gave her *Pulv. Rhei. gr. x. Tect. Ostroor. pp. ʒij. Tinct. Theb. gut. xx. in cb. iv. dir. capt. j. sexta quaque hora.*

27th.

27th. Remains cheerful ; her diarrhæa is relieved with one of the powders, though it made her sick, and disturbed her rest during part of the night.

28th. Pretty free from pain, her chief complaint is weakness, especially on the injured side, and in the abdominal viscera ; but concludes to be removed into the country to-morrow.

IN this case we have not only an instance of the prodigious violence inflicted upon the constitution by this peculiar mode of wounding the nerves, which few surgeons are strangers to ; but there was the greatest probable ground to expect, that dreadful and too common disease, called the locked jaw ; we have also as great reason to believe it was happily averted by the liberal use of opiates combined with antimonials.

A R T I C L E X X X I V .

Observations on the Effects of Emetic Tartar, by external Absorption; in a Letter to J. C. LETTSOM, M. D. &c. by JOHN SHERWEN, Surgeon, and C. M. S.

Read Nov. 19, 1787.

ON the 18th of October, 1785, at ten o'clock at night, I rubbed into the palms of my hands, with the assistance of a few drops of water, five grains of emetic tartar. I was at that time in perfect health. The first sensible effect was a considerable glow of heat upon the parts. In half an hour, as usual, I dropt asleep, and rested well till four in the morning, when I awoke contrary to my usual custom, and was sensible of a very slight nausea, so slight that it might perhaps be only fancy. My skin burnt a little, and I was rather uneasy; but in less than an hour after, I began to perspire, and continued doing so in a pleasant manner, till my usual hour of rising; at which time
the

the perspiration encreasing, I continued in bed till after seven; and am convinced that had I been able to continue longer in bed, I might have induced a copious sweat by the use of warm diluting drinks. Upon rising, and wiping off the perspiration with a dry cloth, I found no inconvenience except some little disinclination to breakfast.

As the emetic tartar, in the form of a powder, though assisted with moisture, did not seem to rub in pleasantly, I varied the form, by dissolving one dram in two ounces of water, which produced a saturated solution, part of the emetic tartar remaining undissolved at the bottom of the phial. At ten o'clock at night, I again rubbed into my hands and wrists eighty large drops of this solution, containing, as nearly as I could judge, nine grains of emetic tartar. The same quantity was at the same time used by two young men in my family, who did not know that it was a solution of emetic tartar, as I wished to hear their account in the morning, uninfluenced by fancy.

I awoke at four o'clock as before, hot and rather uneasy ; my pulse quickened as if I had drank wine. I felt some slight nausea, and a peristaltic motion. In about an hour the skin began as before to moisten, and at six o'clock perspiration came on. At this time I arose, and in the course of two hours found it act twice as a gentle laxative.

Both my coadjutors felt the burning sensations in the palms of their hands, and were both sweated in the night. One was sick the next forenoon ; the other slightly sick, and had a brisk evacuation by stool, and was cured of a cold which he had upon him at the time he went to bed.

For two or three days after this experiment, I was sensible of an encreased flow of urine, and some little tendency to looseness, a thing very unusual to me.

I prevailed upon a lady of a very delicate nervous habit, who had a slight cold and inflammation in the tonsils, to try the same remedy, viz. Five grains of emetic tartar, rubbed

bed in with the assistance of a few drops of water. She slept as usual ; felt a burning sensation in the palms of her hands, and once or twice in the night awoke with nausea, but no perspiration. The same lady repeated the dose in solution, to the quantity of seven grains. She experienced some slight perspiration and nausea. In the morning it had the effect of an easy dose of physic ; and throughout the following day she was sensible that her whole system was acted upon by the medicine. Its most sensible effect was a considerable increase in the flow of urine ; and two or three days after she observed a rash, with considerable itching all over her skin, which did not subside in less than two days more.

A woman aged fifty, had long complained of pain in her side, loss of appetite, and chronic weakness, which she attributed to a fall that she met with six months before. At other times she ascribed her disorder as women at that period do almost every disorder, to the menses flying about her. It is most probable, however, that her illness was in a great measure owing to the drying up of

an ulcerous inflammation in her leg, which had for some years been attended with considerable discharge, and which had entirely ceased upon the application of a white powder given by a neighbour.

I prevailed upon this person to rub seven grains of emetic tartar, with a few drops of water into her side, and the region of the stomach, where her pain was chiefly felt. She rubbed it in freely with her own hand. After using three or four doses, I asked her what effect she had observed? She said, that it searched her all over; that she sweated so profusely, her shift and the sheets might have been wrung; that she was sick, but did not retch. I have the pleasure to add, that since the use of the above remedy, her leg began again to discharge freely, and she felt herself so much relieved, that she desired to have a continuance of the same medicine, and is now rubbing in ten grains every other night; and obtained a perfect cure from her complaints, which had been very obstinate; her complaints however at last put on an intermittent appearance, when bark produced a happy effect.

This

This will be considered as sufficient evidence, that large quantities of emetic tartar may thus be introduced into the constitution with very little inconvenience. Can it be doubted then, that this mode of administering antimonials must be infinitely preferable to swallowing, when we wish them to act on the general system as alteratives. If a putrid, or a bilious colluvies, is to be evacuated from the stomach or intestines, a proper dose by the mouth will always be preferred. How many patients labouring under scorbutic, herpetic, and leprous eruptions, have persevered in the use of antimonial wine for months, perhaps years, with little or no benefit! If antimonials are useful in these, or in any other chronic affections, let them in future be administered in the manner here proposed; for thus the juices of the human machine may be safely saturated with antimony in its most active form; and a proportion of this valuable medicine may thus pass through the system in one week, without exciting irritation in the stomach, greater than in twelve months, by the usual mode of administering it.

It may be proper to caution the patient against the use of acids, at the time of going through a course of this medicine. I have reason to think that I was myself injured by inattention in this respect. I have already said, that for three days after the external application of the solution of emetic tartar, I felt an increase both of the urinary and intestinal discharges, from which I concluded, that I was still under the influence of the antimonial particles floating in my system. At this time I rubbed a few grains of emetic tartar, with my own hands, into the skin of a patient afflicted with a dysenteric fever of a very malignant kind, which had evidently been acquired by infection, and from which I could trace the progress of infection to two other patients, who with some difficulty recovered.

I washed my hands carefully immediately after, and thought no more of what I had done. The next day I eat a small bunch of grapes; on the following day another; and in the afternoon, having occasion to go through a field of excellent turnips, of which
I am

I am remarkably fond, I was tempted to indulge my palate. In the night I was seized (soon after having been called up in the course of my profession) with violent tormina, and almost incessant inclination to go to stool, with little or no evacuation. Often, after straining ten minutes, not more than a few drops of mucus, slightly tinged with blood, would appear. In the morning I took infusion and tincture of fenna, with soluble tartar, and diluted most copiously with water gruel and mutton broth, with a view to increase the quantity of the discharge, but with little effect, as the fluids which I drank in such quantities, quickly passed off by the kidneys, without washing the small intestines. The tenesmus continued with racking pain all day. At night I was quieted by the use of a testaceous mixture, with plenty of gum arabic, without having recourse to laudanum. By the use of the testaceous mixture, I got perfectly well in a few days, and generally found immediate relief, as soon as the testaceous mixture reached my stomach, though the seat of my pain was low down in the intestinal canal.

Unable

Unable myself to determine, whether this complaint was excited by the absorption of emetic tartar*, or by infection, I leave the intelligent reader to his own reflections. The consequence, however, was such upon my health, that I could not help considering it as stumbling at the very threshold; as it put a stop for several days to this career of experiments.

A R T I C L E XXXV.

Observations on the Effects of Arsenic, by external Absorption, by JOHN SHERWEN, Surgeon, and C. M. S. Communicated by J. C. LETT-SOM, M. D. &c.

Read December 3, 1787.

HAVING so recently smarted, the reader may perhaps be surpris'd to find the next subject of experimental enquiry to be

* I have, however, very little doubt, but the complaint was owing to the emetic tartar, as there was not sufficient length of time for infection to have taken place, and the relief from the testaceous powder was such as might be expected from the chemical properties of the stimulant, and its affinity to the testaceous powder.

arsenic.

arsenic. I have long been anxious to hit upon some lenient mode of administering this powerful mineral, since the most valuable remedies have been discovered in the class of poisons.

Monfieur Le Febure of Paris, hath already published a work, in which arsenic is recommended for the radical cure of cancers. His mode of administering it, is similar to that in which corrosive sublimate hath long been given in this country in the lues venerea; but as the practice does not appear to have been adopted with us, nor do we find that it has made any great progress in France, it is reasonable to conclude, that it is either less efficacious than Monfieur Le Febure asserts, or the idea of its poisonous property still operates so very powerfully on the minds of practitioners, as to stand in the way of proper and repeated trials.

Reflecting on this subject, it occurred to me, that as arsenic is but little soluble in water, it would be necessary to procure a
more

more soluble preparation, in order to institute fair and judicious trials.

I flatter myself I have been fortunate in my endeavours to procure such a preparation, which, detesting every idea of a nostrum, I here publish, in hopes that some of my ingenious readers may assist me in perfecting and rendering useful to mankind.

Arsenicum solubile vel tartarifatum.

R. *Arsenici albi, ꝑ.*
ChrySTALLORUM Tartari singulorum, ʒij.
Aquæ puræ ℥vj.

Coque per horam dimidiam; deinde cola per chartam, et rite evaporatum sepone quo chrySTALLI formentur.

It will immediately occur to the intelligent chemist, that this is a preparation formed on the plan of the emetic tartar of the London Dispensatory; which, after various trials, I conceive to be the best. It gave me pleasure to observe that I could thus, with little
 trouble,

trouble, produce an arsenical tartar soluble in water of a beautiful appearance.

On the 27th of October, I made the first trial of this medicine upon myself, a duty which I think incumbent on every man who wishes to strike out new discoveries in medicine, and more especially when he attempts the use of dangerous drugs. At ten o'clock at night, I rubbed one grain very easily into the palms of my hands. I slept well as usual, and in the morning thought I could observe a very sensible increase in the flow of urine, but no other effect. I repeated the experiment the next night, in conjunction with Mr. Thomas Ives and Mr. Henry Boutflower, two young gentlemen under my care. We all experienced the same effect, viz. some increase in the flow of urine, but nothing else remarkable.

On the 29th we repeated the experiment, with two grains each. The increased secretion of urine was remarkable in us all, and I was myself sensible of some degree of nausea in the morning; hence it is evident, that

that the medicine acted upon the general system.

On the 30th at night, I was determined to try the same medicine inwardly, according to the following prescription.

R. *Tart. Arsenic.* gr. j.

Sacchar. alb. p. ℥ss.

Accurate misceantur, et in partes xvi. equales dividuntur.

The smallness of the dose may perhaps wear the appearance of timidity ; but in a business of this kind, it is impossible to act with too much caution, especially as the quantity can be increased at pleasure. It was swallowed undiluted, and excited some uneasy sensations in the œsophagus, not unlike the heart-burn ; and small as the dose was, I could perceive its effects as a very powerful diuretic. The next day it was repeated by my two assistants and my coachman, and we all experienced its effects as a diuretic.

November

November 29th, at ten o'clock at night, I swallowed half a grain, dissolved in half an ounce of water. I was here however deserted by my fellow labourers; and from some particular hurry the next day, I either neglected to make a minute of the effect, or my paper has been mislaid; and from that time till now, other subjects having engaged my attention, I have never repeated the experiment. I trust, however, that what I have already offered, will induce some other persons to prosecute the enquiry.

Arsenic is evidently the basis of every celebrated empirical remedy for cancer; happy will it be for mankind, if it should be discovered really to possess a specific power over this tremendous infection, which, like the venereal virus, I am persuaded and trust I shall hereafter be able to prove, gets admission into the human system by external absorption: should it fail however in this most desirable end, I shall still think myself happy, if in my search after a remedy for cancer, I shall have stumbled upon an efficacious one for dropsy.

The

The few experiments here recorded, prove it to be possessed of great powers as a diuretic, independent of that further power which it is well known to possess, of exciting the most heartfelt sickness and nausea, on which I believe often depends the efficacy of various emetics and hydragogue cathartics, in exciting the action of the absorbent vessels. During excessive sickness, the whole frame is strangely thrown into agitation; the remotest parts of the system sympathize with the suffering stimulated stomach, so that we need not be surpris'd to hear that excellent observer of nature, Sydenham, exclaim, "that there must be some secret passages through which the waters are carried from the cavity of the belly to the intestines; for we daily observe," says he, "that hydragogues evacuate
ch a great quantity of water from the belly by stool, as if it were contained in the very intestines *." And in another place, speaking more particularly of the action of emetics, he has these words, "Whatever these passages are, through which the water passes

* Vide p. 190.

from the cavity of the belly to the intestines, I am certain that vomiting provoked by the said emetic, viz. the infusion of crocus metallorum, does powerfully evacuate the same, and not only downward by stool, but also upward, through the stomach and mouth, in the act of vomiting; for after vomiting twice or thrice, the waters do not seem to be drawn so much by the secretery force of the medicine, as to run with a full stream, the stoppages being broken and opened; which appears plain enough, by the frequent impetuous irruption of them betwixt the spaces or intervals of vomiting.”

Sydenham, though a stranger to the true nature of the absorbent system, yet as an experienced practitioner perhaps knew better how to excite the action of that system, than all the gentlemen who have written on the subject. Perhaps in proportion as we have encreased in our knowledge of the physiology of the absorbents, we have fallen off in our practical skill in the cure of dropsy.

With what confidence does Lister prescribe the *Succus Ebuli* in the cure of dropfies; a remedy which modern practice is almost an entire stranger to.

I hope the reader will pardon my introducing the following case here, which shews the extraordinary power of a brisk emetic in reducing a dropfy, and certainly not inapplicable to the present subject.

William Davis, who had last year been relieved, but not effectually cured of a dropfy in the London Hospital, applied to me on the 14th of March, 1787. His legs, thighs, belly and face were very tumid, and the scrotum was nearly as large as his head. I determined the next day to make two deep incisions into the scrotum, but first resolved to try the effect of a smart emetic. I prescribed five grains of emetic tartar, rubbed up with sugar, which acted agreeable to my warmest desire. When I saw him the next day, I could scarcely believe the evidence of my own eyes. The reader will easily judge of the astonishing effect, when he is informed
that

that the scrotum was corrugated almost to its natural appearance. I followed up the cure with large doses of cream of tartar, which had also a happy effect; for in a few days his legs and thighs only shewed marks of dropsy; but on the 27th of the same month, I had reason to apprehend I should yet lose my patient, for he was now seized with a new complaint, viz. intense pain in the head, with inability to bear the light; a burning skin, and an eye and countenance which indicated the presence of a degree of inflammation, which till then I thought incompatible with dropsy. I bled him to the amount at least of sixteen ounces, which almost immediately enabled him to bear the light of the window.

This disorder soon shewed itself to be a very formidable intermittent, complicated during the paroxysm with delirium, and so strong an inflammatory diathesis, as to forbid the use of bark; which indeed I was not very solicitous to use, as I conceived that this new disease might effect a perfect cure of the former. I suffered the disorder to

run on till the 4th of April, when I trusted that the inflammatory disposition was so far quelled, that I might safely use the bark. Such was his situation at that time, it was difficult to form an opinion, whether it was safer to administer or postpone the use of bark. The pressing symptom, however, being a regular return of paroxysm, I ventured upon a free use of the red bark, by which it was immediately checked; but the pain in the head continued great.

On the 6th, I applied a large blister to the nape of the neck.

On the 15th, I found it necessary again to have recourse to the bark, and to introduce a large and deep seton into the nape of his neck. From that time to the present, he has continued regularly to recover; and has at this moment some symptoms only of dropsy in his legs. His appetite and countenance are good*. He is a young man in the prime

* If the dropsy, however, arose from a rupture of lymphatics, there will be reason to apprehend a return of it again.

of life ; only thirty-six years of age, and naturally of a robust constitution. His disorder came upon him last summer, after violent exercise, in a very hot day. In about the space of two hours and a half, he informs me that he unloaded two waggons, containing sixty-five quarters of oats. He carried them all up a pair of stairs, and some of them into the garrets, in sacks containing six bushels each. He drank a good deal of cold small beer at the time, and took to his bed the next day. From that time he gradually fell into a bad state of health. About a fortnight after, I saw him with swelled legs, and other symptoms of dropsy. Soon after, he went into the London Hospital, from whence he returned much relieved, but gradually fell again into the same situation in which I found him at the commencement of this account.

But, to return to the subject of my paper, should any of my readers be struck with the importance of this enquiry, I would wish to encourage him by observing, that there once was a time when practitioners would have

dreaded the internal use of mercury, anti-
mony, and perhaps hemlock, as much as we
do at this day the internal administration of
arsenic.

A R T I C L E XXXVI.

*Hints on the Management of Women in certain
Cases of Pregnancy, by Mr. JAMES LUCAS,
one of the Surgeons of the General Infirmary
at Leeds. Communicated by J. C. LETTSOM,
M. D. &c.*

Read September 8, 1788.

PRESUMING that the following hints
may not be foreign to the design of
your publication, I take the liberty of sub-
mitting them to your consideration, in hopes
that they may prove as beneficial to others,
as I have found them useful in my own prac-
tice.

In consequence of my relating to the late
Dr. Fothergill, the utility of abstinence in
facilitating

facilitating difficult labours, I was favoured with an account of his success in preventing abortion, even in very delicate women, by prescribing a sparing diet about the same period of pregnancy, at which they had formerly miscarried.

Although in most systematic writers on midwifery, the subject of abortion, when immediately threatened, is fully discussed; yet few observations are to be met with, respecting its prevention in future gestations. Those who are subject to miscarriage are often unhealthy, and of delicate habits. As the occasional causes of abortion are seldom suddenly succeeded by the symptoms which immediately produce it, the preventive means are generally applied too late to be of material advantage. After a woman has been subject to miscarriage, unless when it has happened from an external injury, there seems to be a peculiar disposition to it about the same period of the next pregnancy; and even from such slight causes, that I have known it appear to be produced from a fit of anger; while on the contrary, those who
have

have never miscarried are so little liable to abortion, that attempts to procure it have often rather endangered the life of the mother, than accomplished the baneful design.

Some years ago I was called to a patient, who had taken about a drachm of powdered cantharides, which brought on frequent vomiting, violent spurious pains, a tenesmus, and immoderate diuresis, succeeded by an acute fever, which reduced her to extreme weakness; yet no signs of miscarriage appeared, and about five months after, the woman was delivered of a healthy child.

Accidents, or an acute disease, may be productive of abortion at any period of gestation; but it usually occurs about the third or the seventh month, and its prevention will be found more easy in the former, than the latter stage. A strict attention to the time at which the miscarriage happened before, is necessary. By dating the commencement of pregnancy near a fortnight after the last menstruation, the third month may be nearly ascertained; and by observing the
time

time of quickening, the seventh month may also be sufficiently known. If women would be thus exact in their calculation, as to the time when parturition might be expected, it would save themselves as well as their attendants much trouble; and it would rarely happen that the time could be mistaken more than a fortnight.

The preventive means, to which I would wish to solicit the attention of practitioners in midwifery, consist in strengthening the habit previous to a subsequent pregnancy; in taking away a few ounces of blood a week or two before that period of gestation, at which the last miscarriage had happened; in advising a more abstemious or less nutritive diet; in prohibiting the use of fermented liquors, or of any severe exercise, especially such as may affect the parts more immediately concerned.

The following case may tend to illustrate the practice:

In

In 1784, I was consulted for a patient about thirty years of age, who had, in the space of four years, miscarried as many times, although she had before been the mother of two healthy children. Her constitution was so delicate, that her friends thought her consumptive. By the use of tonics, Buxton waters, and exercise on horseback, her health was much amended.

The latter end of December, 1785, she began to have such complaints as frequently attend the early part of pregnancy. The catamenia had ceased the 2d of November. January the 21st, supposed to be prior to the period at which she had before miscarried, I took three or four ounces of blood, and recommended a more sparing diet, particularly in regard to animal food, and fermented liquors. Having strictly pursued this plan for a fortnight, she was advised to return gradually to her accustomed mode of living. Although she had before miscarried about the third month, she now passed that time without having any menacing symptoms. On the
28th

28th of March, the motion of the fœtus was first perceived. Previous to the seventh month, her habit was so much reduced by the treatment requisite for an inflammatory fever that attacked her about that time, as to obviate the necessity of repeating the abstemious plan; and which was also less indicated from her never having miscarried in the latter stage of gestation.

After having completed the full time of pregnancy, with fewer complaints than usual, on the 17th of August she was delivered of a healthy child, to which she gave suck, and has since enjoyed a good state of health. Such treatment is chiefly adapted to prevent abortion about the third month; and no great expectation can be had from it in the latter stage, especially if the placenta is attached to the os tincæ, and proves the cause of uterine hæmorrhage. It has failed even in a few cases of early miscarriage, but it has more frequently been found beneficial. I have sometimes omitted a recommendation of it, where future experience has convinced me of its utility. It is requisite but for a short

short time, may easily be varied, and has been found to relieve complaints of the stomach often attendant on such situations; nor does it in any respect interfere with the use of cold bathing, or other corroborants during the remaining part of gestation.

THE reluctance which every practitioner must experience, who is under the necessity of having recourse to embryotomy, induced me to reflect upon the most probable means of preventing, as far as possible, the exigency of this operation.

Stout healthy women, and such as are accustomed to indulgences in diet; have been observed to have large children, and vice versa. A country practitioner, in a letter to Dr. Smellie, observes*, “I was called to a woman in labour, who had been extremely hearty during pregnancy, and was

* Vol. iii. p. 55.

uncommonly

uncommonly big. The child weighed sixteen pounds.”

An unexpected and happy event has often been the result of waiting for the efforts of nature in tedious labours, especially where the fœtus has not proved of an uncommon size, and where the bones of the head have been pliable. Pregnant women frequently retain but little nourishment for some months, without any pernicious effects; and a change from a full to a sparing diet, accompanied with an increase of exercise, has been found to reduce corpulency, as well as to assist the cure of many obstinate diseases.

These observations suggested to me, that by an abstemious diet followed by the mother, the growth of the fœtus might be somewhat restrained, and the bones of its head be found more yielding, without its proving injurious either to the health of the mother or child.

Some years since I began to prescribe a regimen to such, in whom the pelvis was so contracted

contracted as already to have required embryotomy; and it afterwards occurred to me, that a similar plan might be still more beneficial to those in whom the difficulty of labour depended on the uncommon size of the fœtus; as well as to those who became pregnant at a more advanced age than usual. Yet difference of habit, and the nature of the case may require some variation in the mode proposed, and which must be left to the discretion of the practitioner. The treatment which I have advised is, that of temperance in diet, a diminution of the usual quantity, or change in the quality of the food; an increase of exercise, the occasional loss of a few ounces of blood, and the moderate use of cooling aperients. This regimen has been more strictly enjoined in the last months of pregnancy, from a persuasion that an observance of it in the former months would avail little, if neglected in the latter. I have generally found the practice successful, in proportion as it has been regularly pursued; and it has been remarked by the attendants, that the infant was less than usual.

Where

Where the size of the fœtus alone may be supposed to create the difficulty, pursuing the plan for a month or two before parturition, may be sufficient ; but when the pelvis is distorted, the rules should be early commenced and adhered to with the strictest attention. In a case where in consultation it had twice been judged necessary, from the curvature in the pelvis, to have recourse to embryotomy, by such treatment the woman's next labour was remarkably less tedious, and the child was delivered without difficulty. One who had had uncommonly severe and lingering labours, had afterwards a much easier and quicker one, from the child proving of a smaller size ; and another who had been delivered of two very large children, the first stillborn, and the other for some time apparently without life, has since had less and more lively children, without any hindrance arising in these cases from the presentation. This method has disappointed me in one or two instances only ; and even in these I am not perfectly satisfied, that the regimen was strictly adhered to : but in no case whatever have I found it in any respect prejudicial.

When

When patients have cheerfully conformed to the rules, it has not been unusual for them to remark the additional advantages. One who had been in former lyings-in, subject to an inflammatory fever, imputed her escape from it, to the abstemious mode of living she had so attentively observed.

As the distortion of the pelvis is rarely marked by any outward symptoms, or an immoderate size of the fœtus, in the first instance suspected, we can seldom have it in our power to direct such treatment, until the necessity of it has been pointed out by former sufferings; yet when pregnant women indulge themselves in eating to excess, and at the same time use little exercise, we may with propriety advise a different conduct. There can be little expectation of success, where the bones of the pelvis are so distorted, that the Cæsarian operation is likely to prove the only resource; but in such deplorable cases, what is proposed by Dr. Cooper, in the *London Medical Observations* *, seems warranted.

* Vol. iv. p. 271.

Women who have been confined to a sitting posture, by the nature of their occupation; or who have been weakened by rheumatism, or any other chronic disease, are liable to contract gradually a curvature in the pelvis, and this where no such malformation before existed; and when they have already had natural and common labours.

Some such unfortunate cases have fallen to my lot, where delivery could not be effected without operative means; the majority of such cases have been the wives of manufacturers, and consultations were previously obtained. It would be well if this unhappy change in the pelvis could be either prevented, or early discovered, its cause investigated, and a stop put to its progress.

Although the subjects who may require such regimen, are generally of an inferior rank in life, yet they have an equal claim to our compassion; and such means may happen to preserve the offspring of nobler blood.

A R T I C L E XXXVII*.

Some Remarks on the Influenza that appeared in Spring 1782, in a Letter to Dr. LETTSOM, by R. HAMILTON, M. D. of the Royal College of Physicians, London, Member of the Medical and Philosophical Societies of Edinburgh, and of the Medical Society of London.

Read November 27, 1787.

S I R,

AT your desire I sit down to inform you of the result of my practice, and the few observations I made on the influenza of

* Although this, and the following Article, have lain some years with the Medical Society, the want of opportunity having hitherto prevented their publication; yet the subject on which they treat is no less interesting to posterity, than if they had been printed much earlier; and appearances of a catarrhal affection resembling the influenza, on which they treat, having recently occurred, the present time was deemed eligible, more especially as no late miscellaneous publication contains a complete account of the disease.

1782. Though I know it can add little to what you are already in possession of, yet the desire I feel for the encouragement of every scheme which tends to the improvement of that science, into the principles of which I have been initiated, induces me the more readily to add my mite.

From the 1st of January this year, till about the end of May, throughout most places in the kingdom, the weather was uncommonly unfavourable. Snow, frost, rain, wind, lightning, and thunder to a great degree, by turns constituted the weather in the neighbourhood where I remained.

The spring was consequently cold, and the tillage of the land was retarded by the almost constant rains that about this time marked the season.

With regard to the time of its first appearance in the places where I then practised, as far as I could learn, it was in the first week in May. Dr. Grant dates its commencement in the suburbs of London, so early as March.

For some time at least before it appeared at St. Alban's, which is only 21 miles from London, our accounts from the capital told us of its commencement there. By the middle of April the Dr. says, it had spread itself all over London *. Others however, deny it to be in London till May, and say that it raged most about the 20th of this month.

St. Albans and Luton are only 10 miles distant. It appeared several days sooner in the former than the latter. Luton does not lie on the great road from London, therefore the communication with it is less.

My practice took in the compass of several villages, viz. Colney, St. Albans, Redburn, Market - Street, Harpenden, Saundrige, Wheathamstead, Hatfield, and Bell-Barr. By this means it lay in a large scope of country, many miles in circumference. This afforded me some opportunities of remarking the progress of the disease, and symptoms with which it was attended.

* Vide Grant on Influenza.

Between St. Albans and Redburn it is only four miles and a half; yet it was later by some days of appearing here than in the other, as far as I was able to learn.

Market-Street is about four miles north-west of Redburn. Here likewise it was later of appearing than at the other.

Dunstable is between seven and eight miles northward, on the same road, and Luton five miles from it southward. At these two places it shewed itself much about the same time.

Harpenden stands half-way between Luton and St. Albans. This was not only the latest place where it appeared, but fewer ill here, comparatively, both of the inhabitants and the soldiers quartered in it, and under my care. Perhaps this may be, in some measure, owing to its situation favouring less its exciting and pre-disposing cause.

The houses in this village are scattered irregularly, over a considerable piece of
E e 3 ground;

ground ; most of them not only stand separately, but at some distance from each other ; the street, if it may be called so, except near the north end of the town, is in breadth near a musket shot ; a pretty wide common extending down it. In this common (or street) stand many trees, but not so close as in any degree to prevent free perflation. At the south end of the village is a spacious common, covered here and there with heath. The town stands rather on an eminence, and the soil of a light dry nature ; when compared to Luton, Redburn, and Dunstable.

Saundrige lies about two miles and a half to the south-east, and is more encompassed with wood. About the same distance likewise, but in a more northerly direction, lies Wheathampstead. Fewer were ill in Saundrige, than Wheathampstead, according to the size of the town,

Both Luton and Wheathampstead lie very low ; but chiefly Luton, which is buried in a sort of dell, formed by hills near it on the south-west and north-east. Through both
run

runs a rivulet, the banks of which in many places are flat, suffering its waters easily to overflow. This always happens when rains fall more than ordinary, whereby marshes are formed along them, which sometimes the heat of even a warm dry summer is not sufficient, completely to exhale. In this part of the country there is also much wood.

North-west of Luton, on the road to Dunstable, it is flat. A large ridge of hills runs from Dunstable to Luton, facing the east, and of so chalky a nature, that in many places no sward grows to cover it. For a considerable way east of this ridge it is flat, the river aforesaid winding down it. This and the wood always keep a greater quantity of moisture in these places; hence the air is colder from the exhalation, and the ground, if the weather be at all moist, is wet, and dirty under foot. I would assign this as the reason for the more frequency of intermittents along the banks of this stream, than in any other part of this country, space for space.

Dunstable

Dunstable is situated more on a flat than the two last towns; it may be said to lie in a wide vale, formed by some hills at several miles distance. A large pond of water stands in the midst of the street, where horses are watered, and carriages washed. In St. Albans we find a similar one. These may be considered as no addition to the health of the inhabitants, especially to those living near them, and more immediately in the way of their effluvia.

The water in the pond at Dunstable, as the weather became warm, grew very corrupt, which was denoted not only by its smell, but by its green colour. I have likewise seen dead dogs lying in it; and indeed it may be said to be a receptacle for much filth tossed into it by the carelessness and inadvertency of the inhabitants.

Colney is on the great road three miles nearer London than St. Albans. The disease appeared about the same time here as at St. Albans. The town is small, and like Harpenden, scattered. It is washed also by a
river;

river; and the soil around appears to me rather of a lighter nature, than several of the places mentioned.

Hatfield is distant only five miles from St. Albans, and in a more northerly direction. It is situated on the great north-east road from London; stands partly on a hill, and partly on a steep declivity. Bell-Barr is only two miles from it; the country all around is also thickly covered with wood. Though Hatfield is only eighteen miles from London, yet the disease was later of commencing there than in the capital, notwithstanding the constant passing of so many strangers to and from London, by the stage coaches, waggons, and other conveyances. The inhabitants and soldiers here suffered considerably. Each of these towns contain several hundred of inhabitants. In several of them weekly markets are held. Saundrige, Bell-Barr, and Colney, are smaller than the others.

The disease did not appear in Yarmouth till the first week in June. This town is distant from London 123 miles to the north.

Ipswich

Ipswich in Suffolk is distant from the metropolis 70 miles on the north-east, or rather east road; it was also the first week in June when it appeared here; nor then, till it was brought there from London. A surgeon at Ipswich happened to be in London at the time it raged in it; he left it on the last day of May, and arrived at his house about eleven next morning. "I left town," he says, "the last day in May at night, and was then ill of it. I had none under my care then in it; a few days after, I had several, but none so much debilitated as myself." From him it spread through all the town,

At Stamfordham, in Northumberland, it also appeared about the first week in June*, according to my correspondent; it shewed itself much about the same time at Newcastle on Tyne. It disappeared about Stamfordham in the third week of August.

In the places already described, where my practice chiefly lay, it may be said entirely to

* My correspondent's letter is dated July 8th, 1782, and says, "The influenza now rages among us."

have ceased about the middle of June. But just at this time, a few dry, windy, and colder days than what had preceded, succeeded our moist weather. This produced several peripneumonic complaints. Some, not sufficiently aware of the distinction, and having their minds prepossessed with the prevalence of the late disease, mistook or rather confounded this intercurrent complaint with the other; though, as it seemed to me, the distinction might be easily made.

In such as I visited under it, there was neither coryza, cough, sneezing, nor pains in the forehead, back, or loins; nor did that degree of debility, so characteristic of the influenza, attend it; instead thereof, I found a strong full pulse, and short respiration, or a catching in taking breath, with fixed pains in the breast and sides.

The mistake was not however attended with any mischiefs; for they bled their patients; found the blood fizy; and in some cases repeated it, they affirmed, with advantage. The disease was still termed the influenza,

fluenza, and they now contended that *V. S.* in it was altogether necessary; thus making the sizziness of the blood a pretext for *V. S.* and the criterion whereby they were to be guided.

But did we think it proper to enter on the subject here, we might with propriety contend, that is not always to be held as the mark of the phlogistic diathesis prevailing in the habit.

Symptoms.

As to the symptoms with which the influenza was attended, they were various in various persons, according to the state of the habit at the time of the attack. The first victims of its fury were the soldiers. And the first symptoms I perceived were, a great cough; straitness about the breast, considerably distended. The patients generally complained of a stoppage in the trachea, giving them the sensation of a ball lodged there. A coryza, or running of a thin acrid mucus from the nose, always took place, so as to excoriate the upper lip, and
vellicate

vellicate the schneiderian membrane. A violent sneezing : a pain of the head much encreased by this last symptom, and most severe in the course of the frontal sinuses. A soreness over the eyes, chiefly about the eyebrows, which they said was seated in the bone. This rendered the eyes stiff, and painful to be opened; nor could they bear a strong light. A rheum also distilled from them, not unlike what we see in the measles. Universal pains over the body ; in most only a slight fever ; in others it ran very high, with a considerable acceleration of the pulse. Faintness ; some, though no great degree of thirst ; the pain of the breast seldom felt but on attempting to cough. Then it resembles the pricking of pins ; but it was seldom or never felt so low down as the cartilago ensiformis. The throat and mouth burns with heat, with an uncommon smarting over the fauces. These, and the tongue dry, and somewhat parched. In two patients I remember a parched tongue was present to a great degree ; here the thirst was greater. Some bled at the nose ; and one of my patients had abscesses formed in both his ears, which

which burst, and continued to discharge for some weeks after. A diarrhæa was not a common symptom, yet I found it in several. Appetite in many was impaired; a nausea also in several cases took place. Little sleep, and this little for the most part broken and disturbed with incoherent dreams. Pulse by no means hard. In some, hoarseness and frequent hawkings up of mucus; in others, little or none.

The heat that succeeded the cold, which more or less marks every febrile paroxysm, sometimes went so far as to be followed by perspiration. In many of my patients this did not happen. The skin remained dry. I seldom found the belly costive; the face sometimes swelled, and the eyes appeared sunk in it, as we often observe in the erysipelas, weakness of the joints of the knees on motion, and a great prostration of strength.

In the neighbourhood of Stamfordham, my correspondent says, and about the neighbourhood of Newcastle on Tyne, it was accompanied

accompanied with colic pains, and cramps in the region of the abdomen and stomach. And some there, also had a purging; some had ulcers in the throat and fauces; but such as I had occasion to observe, were very slight; this was rather a rare occurrence. Many had a slight vertigo, but few of my patients had delirium; though I have heard of its being found frequently in the practice of others. Though a great faintness and debility took place commonly, yet fainting fits as mentioned by some, except in one patient, and that after V. S. seldom or never happened among my patients.

Fits resembling an ague, have been mentioned as a concomitant of the disease, and in the more marshy parts of the island. I doubt not of their existence; and that the influenza was frequently accompanied with a remittent fever, while, in the more dry and open situations, it would partake more of peripneumony. Huxham found this the case. "I well remember," says he, "that the catarrhal fever, which spread through all Europe, under the name of influenza, in the
spring

spring 1743, frequently became pleuritic and peripneumonic; and as frequently after two or three days ran into a quotidian, or tertian; the difference of the constitutions of the patients thus altering the nature and form of the disease*.”

In the villages where my practice lay, I do not remember to have met with any efflorescencies on the skin. I find this was a symptom observed during the epidemic at Bath, as well as a redness and foreness of the throat; from whence Dr. Faulconer imagines, that there is a similarity between it, and the scarlet fever, as described by Dr. Withering of Birmingham †. A surgeon in Beccles informed me, some of his patients had not only a foul tongue, but ulcers on the tonsils; he mentioned none that had red spots on the skin.

Age and Constitution most liable to the Influenza.

With regard to the age most liable to the disease among my patients, I think the mid-

* Vide Huxam on Fevers. Art. Intermitt.

† Vide an account of an Influenza at Bath, by Dr. Faulconer.

dle age felt it most, *ceteris paribus*. I mean from sixteen to forty-five, or so; but few of any age, sex or temperament escaped it. When I speak thus, I am to be understood of those in good health before its attack; for with regard to people in general, the infirm, the valetudinarian, and if old, the more in proportion suffered most.

I had many opportunities of observing the influence of the weather, in rendering it more violent, in a house where the husband, wife, and three daughters were ill at once. The wife was by much the most severely handled; next to her the husband. They kept a public house and brewery, to the latter of which they gave more attention than the daughters, whose employment consisted in waiting on their customers within doors.

A boy of about twelve years of age, of a very stirring disposition, suffered severely; yet escaped the disease, though the rest of the family had been ill some time, till after bathing with other boys in the river, and remaining there longer than prudent, when he was

feized next day with the influenza. We may add to this, that he was a valetudinarian for a long time before, but had lately overcome in a great measure all his complaints.

To corroborate the remark, that the weather, &c. had great influence in modifying it, not only at St. Albans, but the other villages, the soldiers were first seized with it, and were more violently handled than most others. Soldiers are not only lighter clothed, but worse fed, worse lodged, and more exposed to all the vicissitudes of the weather, than most other descriptions of men.

An account from Aberdeen says, “ The disease rages here, and it is rather singular that the soldiers are first attacked by it, and more ill of this description of men than any other. If we allow the same influence to the weather for which I contend, there will appear nothing singular in the case. In a word, the fact is well established. The same remark was made in Dublin, for we find 700 soldiers there labouring under it at once, unable to do their duty in barracks.

An account from Utrecht informs us, of their having no less than 3000 ill of it.

With regard to the fleet, where the influence of the weather likewise prevails, as the crews are much exposed to the open air, both our own, and that of other powers were great sufferers.

Among others of our own vessels, the Stag and Stout privateers suffered greatly; for on coming in to Dublin harbour, most of their crews were ill of it. From one of our ships, it seems, no fewer than 300 were put on shore under it; and out of another 400.

In the Nemesis frigate, 70 were ill at once. This I had from an officer belonging to her, who was himself so ill, that he had not at the time I saw him, recovered from its effects, though at the distance of four months from the attack.

Another instance that the weather had much influence in modifying it, is as follows:

A young gentleman at Luton, about twenty-three, of a volatile turn, and lately a valedudinarian, but who, for eight or ten weeks

had so far recovered, as to be able to follow his amusements, and who, for this purpose, generally walked or rode, whether the weather was favourable or not, several hours a day, often at the same time indulging himself freely in the glass, was at last seized with the epidemic, and suffered severely. We may place this gentleman, in many respects, in the situation of a soldier, with regard to the irregularity of his life, and exposure to the vicissitudes of the weather.

The delicate also, and the valetudinarian, in all my observations, were great sufferers, and still greater in proportion as they were exposed to the vicissitudes of the weather. Others in different parts of England have also made the same observation. A surgeon at Newbury in Berks, writing to me on the subject, has these words, “ a few infirm and bad habits sunk ;” as hardly any valetudinarian escaped it : and as in these it generally appeared with the greatest severity ; so, for the most part, it was attended with dangerous symptoms only in patients of this class. One woman at Luton fell into a phthisis pulmonalis after it.

Both

Both the states of old age and infancy was more exempt from it than any other ; I mean such as were in good health. At four years of age, or so, many suffered. A surgeon at Beccles, in a letter to a friend, affirmed, that a child of his, only eighteen months old, took the disease. This however is the only instance of the kind that came to my knowledge, though I have conversed with many, and made much enquiry on the subject in many parts of England. I had an evident example afforded me to prove, how far the distressing passions predisposed the body to be more severely affected by it. These always debilitate the habit by the constant uneasiness the mind undergoes.

A soldier in the light infantry was for some time violently in love with one of the cyprian nymphs that follow the drum. She was young and handsome, and had so far engaged his affections, that he offered to marry her, though well acquainted with her way of life. She preferred her liberty, and refused him. This had such an effect on his spirits, that from a stout well-looking young fellow, with

all the health of a farmer's servant (for he was lately a recruit from the country), in a short time he became thin and wan; he took the disease; not however when the others had it, but in the beginning of June, when the regiment marched from the villages aforesaid to Royston, on their way to camp. A day or two before this he had parted with his goddels at Luton: he suffered more from the disease than any other of my patients, and his case put on more of a remittent than any other I had seen.

Cause, not in the Air, but in a specific Contagion.

I would not be understood from what I have said relative to the influence of the weather, that the cause of the disease is to be looked for in the air alone. This is only a predisposing cause. Because cold air can give birth to a common catarrh, are we to conclude it can give birth to the influenza? Cold moist air renders indeed the application of a *materies morbi* more effectual.

We have many examples to prove, that the air cannot hold, nor yet convey contagion to any distance. If it be mixed with the atmospheric air, it is soon dissipated, perhaps chemically decomposed, if it be a compound body, and its nature altogether changed. Experience shews, that contagions have always been communicated by contact with the infected, either mediately, or immediately, i. e. by persons who bring it on their clothes to the persons who receive it; or by its being conveyed from the infected in various kinds of goods. I mean here all specific contagions, such as the small pox, &c. or those from human effluvia, such as produce fevers of a dangerous nature. We are now well assured, that the plague, the most infectious of all diseases, is not communicated by the air, but by contact.

The Europeans, who live in those countries where it is endemic, and do not, like the Turks, believe in the destructive tenets of fatality, prudently shut themselves up in their houses, and with the utmost care shun the infected. By this precaution they escape.

Hence

Hence the plague is often found in one street, raging with all its severity, while the inhabitants in the next remain unmolested.

Bad weather may, and often does act on the human body so, as to debilitate it; by which means it becomes more disposed to receive any disease that rages at the time. Whatever debilitates the body, we know has the same effect. In countries where intermittents prevail, they attack the weakly and debilitated, while the more robust pass free.

The late Dr. Gregory was one of twenty-five young gentlemen, who left Great Britain to study under Boerhaave at Leyden, all of them, one excepted, lived pretty freely. He drank water for the most part, when the others drank wine; and he was the only one who suffered from an intermittent during some years they pursued their studies in this university.

We are told by an accurate observer, that wet and cold weather is more injurious to our constitutions, than the same with moderate warmth.

warmth. Though the moist and warm be the most productive of acute and fatal diseases ; yet there is more danger, he tells us, in these respects, to our constitutions from the opposite. A steady set of any sort of weather, he adds, may be productive of particular diseases ; and so is a quick transition from one extreme to another *.

We have already mentioned the unfavourable weather of this spring. From a meteorological register, kept by Mr. Becket of Bristol, we find, that in this city the month of April was for the most part cloudy and disagreeable. Rain, part of seventeen days ; two days of snow, and not one day fair. The wind chiefly from the north and east.

May was still worse. “ This month,” he says, “ no doubt will be remarkable in all the meteorological annals of Europe, for its unusual degree of cold and humidity, with a gloomy and uncommonly disturbed state of the atmosphere. It rained there part of twenty days, and all the others were cloudy

* Dr. Fothergill. Vide Dr. Lettsom's Ed. 8vo.

and hazy ; the wind generally between the south and south-west, frequently strong."

The next month, June, we find very variable ; in the beginning it was cold and rainy ; towards the middle, about a week or ten days fair and warm ; the latter part variable. A remarkable change is noticed, which took place between the 17th and 18th, for between one and two in the afternoon of the 17th, the thermometer stood as high as 89 degrees in the shade ; and next day, in the evening, it sunk as low as 55*.

It has already been pointed out, that the attacks of the disease was not at the same time. If the cause lay in the air, all must have been seized at once ; for, though it often spread rapidly, it was still progressively, sometimes slowly and gradually.

Others have alledged, that it took its rise from the influence of the two superior planets Jupiter and Saturn, that appeared

* Vide Broughton on Influenza at Bristol, 1782.

in a particular situation this year. An ingenious surgeon at Plymouth, is among those who embrace the opinion, that the planets gave rise to the influenza, which visited us some years prior to this *. If this be admitted once, it may be admitted again; therefore we ought to consider how far it is founded in fact, before we assent to it.

That they might, by their great attraction and influence, joined to that of the other heavenly bodies that affect this terraqueous globe, be the cause of the unseasonable weather we experienced, I shall not venture to deny; but at the most this will prove no more than that this bad weather was favourable to the dissemination of any infectious disease appearing at this time. No writer, as far as I know, maintains that it was always the influenza that raged at those times when the planets were in similar situations. Besides, the disease has appeared when they were very differently situated, so that recourse could not be had with the same reason to their greater influence on the earth. I pass over the

* Mr. Geach, F. R. S.

opinion, as too ridiculous, that the moth frequent about London, called by Curtis, the *broxen tail moth*, the caterpillars of which happened to be more than commonly numerous this spring, gave rise to the disease. Those who believed in this, must have very superficially considered the subject.

That the true cause sprung from another source, a particular *materies morbi*, a certain contagion, I think will not require many arguments to prove; the following few proofs may suffice:

The first who were seized with it at Norwich (I have it from good authority *), were two men lately arrived from London, where it then continued to rage. A serjeant of grenadiers of the 10th regiment of foot, went to London on furlow; the disease then raged in the capital; he returned in a few days to St. Albans, affected, and communicated it to the people in whose house he had his billet. This was the first of its appearance there, and

* Dr. Macquean,

from thence it rapidly spread all over the town.

An officer of the same corps, being then in Dublin, told me, he received it from a lady in whose company he sat at dinner. She was then complaining of indisposition from it; he sat next her. Before he left the room he was seized, and did not compleatly recover in two months, having lost his voice great part of this time.

One of Lord Bute's labourers, living on the banks of the river at Luton, happened to receive a compound fracture of his thigh about the beginning of April, a month at least before the influenza appeared there. When the rest of the family were seized; though he had never been from his bed since the accident, yet he caught the disease, and suffered considerably. Here was no exposure to the vicissitudes of the weather. This fell under my own observation, as I attended him from the time of the accident till after the epidemic.

I escaped

I escaped the disease myself, though daily visiting so many under it, till one day being at a Clergyman's, and being desired to visit two of his maids then under it, and inspecting their throats of which they complained, I received their breath full in my face, and thought at the instant it smelled disagreeably. Returning home about an hour after, I began to feel myself chilly with the sensation, as if something stuck in my throat. In ten minutes after, I had a discharge of thin mucus from my nose, began to sneeze, and felt a pain in my head. Though I had only four miles to ride to my lodgings, yet by the time I arrived, I felt myself extremely ill. Here must certainly be contagion; no quality of the air would satisfactorily account for this. Another example of its contagious nature, might be drawn from the news, the Concert and Lizzard men of war escaping it till they came to that part of the Thames, near Gravesend, called Long Reach*.

We might prove it still farther, was it necessary, from its gradual attack. This was

* Vide Lon. Medical Journal.

very observable in many families where I visited. The housekeeper of a gentleman on the opposite side of the street to that where I lived, was not seized till more than ten days after I recovered, though her master often visited me while I lay under it. The lady likewise of the clergyman already mentioned, and her two children had the disease some days before her maid servants were seized. Thus we find one was taken ill to-day, a second to-morrow, and a third perhaps not till several days after. Is not this the usual mode of seizure in all contagious diseases?

Besides, when we reflect on the symptoms of the influenza, we shall find them such in general as denoted debility. Far more prostration of strength was united with it, than we ever find attend catarrhs from cold alone; and I am led to think this forms one of its chief distinguishing symptoms. "A catarrh," says a certain writer, "from the situation of our island, and from the sudden vicissitudes of the weather, with respect to heat and cold, may with the strictest propriety be looked on as the endemic disease of Great Britain.*" But

* Vide Abuse of Medicine, p. 57.

catarrhs from this source alone, never bring with them such loss of the powers of exertion and universal osthenea.

Whatever then may be the nature of this *materies morbi*, it is such as always produces great alterations in the functions of the nervous system.

Few diseases, putrid fevers excepted, ever produced loss of strength and debility more suddenly than this. The crew of the Fly sloop of war, was an instance of this. The captain affirmed, that forty of his men fell ill in less than eight hours; several of whom he declared, dropped down at the wheel, as they steered the vessel. This circumstance obliged him to put back, and stand again for the Yarmouth roads, which he had only left a few hours before, with all hands apparently well, merely for want of hands to navigate her. The infection must have been received from shore, with which they had frequent communications.

The subject of contagion is an obscure one, were we to enter on it; much indeed might be said, but little at present with certainty. We might amuse ourselves with enquiring, wherein consists its difference, by which it can produce in the human body diseases specifically different? why one kind seems to exert its force on the mucous membrane of the trachæa, nose, &c. and produce fever, as in the disease under consideration? why another spends its fury on the skin, and perhaps cellular texture connected with it, as in the small pox? why a third produces dangerous glandular swellings, both external and internal on the throat, with bright red eruptions covering the surface of the body, as in a scarlet fever? But these, and other enquiries of this nature, it is proper to pass over here, as it is matter of fact, not conjecture, I wish to confine myself to. Such shall be left in the state we find them, enveloped in uncertainty and obscurity, from which it is to be feared, our present limited knowledge of the various combinations of matter, will not allow us soon to evolve them; yet, as the knowledge of the human mind is progressive,

Vol. II. G g gressive,

gressive, and every year adds to industrious enquiries, some extension of physiological investigation, I would not too rashly conclude them inscrutable. Was this inculcated, it would prove a check to industry, and become the nurse of ignorance. Several things familiar to-day, in the beginning of the present century, seemed as inscrutable as the present subject, and another series of years may produce as material discoveries in the natural world.

Of the Fatality of the Disease.

In all the scope of country in which I was employed, during its continuance, not one died immediately from it. My medical friends in London, gave me much the same account. I find, however, by the bill of mortality, published in the third volume of Medical Transactions, that there were a great encrease of burials in May and June, which is attributed to it.

In Kent we are informed, it was not dangerous. A gentleman residing near the coast
says,

says, " Few have escaped it, but I know not of a single instance of danger *." It was said to be fatal in Jersey ; but some doubt may remain concerning the disease, as every complaint was denominated influenza, that appeared about this time. Mr. Friend of Newbury, lost only one patient ; nor was he altogether certain, whether the disease was influenza. From a cursory account of her symptoms, which he adds, " I am inclined to doubt in like manner, as this case happened," he adds, " in June, when the influenza was prevalent here, I have been disposed to think it partook of the epidemic, though the symptoms were somewhat dissimilar." Four in the practice of Mr. Binney, of the same place, died. Two of these, he says, were upwards of sixty, and very infirm before the influenza seized them ; the other two were also in advanced life.

At Royston I was told, " few, or none died there." In the neighbourhood of Cambridge, I found a man who had lost his wife,

* London Medical Journal.

and I think he said three children by it ; but this is likewise doubtful ; it might be at least compounded with the ague, a disease frequent here. At Yarmouth, on enquiry, I found none died of it. I arrived there July the 6th, very lately after it had ceased. My correspondent from Stamfordham (Mr. Scott) says, it only proved fatal in this neighbourhood in three instances. At Ipswich in Suffolk, I cannot learn that it proved fatal in a single instance.

Cure.

Among the means of cure, various in various persons, which have been had recourse to, none is of more material consequence to consider than venæsection. On this head we shall beg leave to suggest a few things. Those who contended that they found it useful and necessary, generally gave the appearance of the buffy crust, as one of their reasons. This, it is well known, is a very fallacious test. It appears on many occasions, where V. S. is by no means warranted. We always find it in the blood of pregnant women, if their pregnancy

pregnancy

pregnancy be any thing advanced ; and we meet it often in the last stage of a consumption, when the powers of the body are nearly exhausted ; likewise in dropfy, where we have little reason to suppose inflammation ; and less still that V. S. would prove useful.

The coagulable lymph may be separated in whitish or bluish streaks on the surface of the blood ; yet the crassamentum, if compared to the serum, may be very disproportionate. It may be smaller in quantity, perhaps a thin pelicle, and even sometimes not very accurately separated from the serum. The crassamentum, with this appearance, may almost dissolve on handling ; or the under side be so loose, as to fall into pieces when taken up for examination.

It is needless to mention here, what every one knows, who has attended to the subject, that the form of the cup the blood flows into, the size of the orifice, nay, the very materials of which it is composed, with several things of this nature, are to be attended to,

in forming an opinion respecting blood *. Hence, neither the presence, nor yet absence of the buffy crust, is an absolute guide to determine us for or against V. S. The density of the crassamentum, the small quantity of serum separated, with perhaps its greenish colour, even should no coagulable lymph appear, denote higher degrees of inflammation, and greater activity in the arterial system oftentimes, than when the buffy coat covers the surface. The first drawn cup often shews none; the second and third perhaps abound with it.

Inflammatory blood, denoting general V. S. is not only dense, but the lymph on its surface, when it shews itself is tough and thick, still growing tougher by handling, contrary to what it does when it appears in debilitated habits. The crassamentum is often found contracted on its surface, somewhat into the form of a cup, with the under-side of the cake, solid and firm. Nor should we be led always to judge of the propriety of V. S. even

* Vide Hay on the Blood.

from the pulse, without maturely weighing every circumstance of the case, and symptoms with which it is attended. A small pulse should not always deter us from the use of the lancet; nor yet a large pulse, apparently strong under the fingers, urge us to it: for the one, even from a trifling loss, a few ounces, will sometimes sink, and prostration and debility so rapidly follow, that all our endeavours may not be able to repair the injury occasioned by it: while the other rises as we continue to draw off the blood, and bears with manifest advantage a large loss of blood. A dyspnœa is another symptom for which V.S. has been commonly instituted, but here, likewise, the same caution ought to be observed, for it not unfrequently takes place from debility; and this is manifested from its often attending too much depletion. Every one who has seen it improperly instituted, and repeated for this symptom in rheumatism, will be fully convinced of the truth of this observation: instead of remedying this symptom, every repetition increases it, and the anxiety with which it is attended; and that, on a corroborating plan
being

being pursued, it is as gradually and effectually removed. These things duly attended to, should teach us caution at all times in the use of the lancet. To these may be added, that the symptoms, as already observed in the influenza, were, for the most part, such as to deter the cautious from V. S., even in those cases where it seemed admissable, it was to be done with care, and after nice observation.

We found that for the most part the pulse was soft; indeed very rarely hard; that it was small and debile; even seldom full, and betraying very little activity in the arterious system, with pains in the back and loins, vertigo, rigors, &c.

Some inflammation I will allow; the state of the mucus membrane proved, there was a degree of it present. We know a degree of it exists in chronic rheumatism; yet V. S. is seldom advantageously used in this complaint; for if it be pushed to any degree, a paralytic affection might be the consequence, or other marks of asthenia equally bad.

Wh^o

Who would at this day think of employing V. S. in the putrid fore throat; yet we find from the authors who have treated on the subject, that the blood often shewed the buffy coat. Dr. Fothergill speaking on the subject, expressly says, after telling us the blood was of a fresh, florid colour, and the crassamentum lax, &c. “But it is often fizy when the disease has continued two or three days; and in some instances that lately occurred, it was so soon after the first attack;”* yet it is well known, bleeding never cures it, nay, though it relieves for a little by taking off the sense of plethora, and easing the breathing, it only serves, if often repeated, to weaken the system, and reduce the miserable patient still farther.

I call it plethora here, whether in relation to the encreased quantity of the blood, or other fluids; or in the diminished force of the heart, unable now to propel the blood, so as to dilate the artery with its accustomed ease. It is this last plethora that seems

* Vide Fothergill's Works.

sometimes to exist in hectic habits, where V. S. serves only to augment the degree of debility. The blood is thereby lessened in quantity, and thus the plethoric symptoms for a time, relieved ; but the vessels soon accommodate themselves to their lessened contents, whereby a similar spurious plethora is again induced. V. S. is repeated with a view to remove this sensation, and so on, till the powers totally sink. I have somewhere read of an instance where the patient died under the operation.

In the peripneumonia notha of Huxham, we find him dissuading from V. S. though at the same time he admitted the presence of considerable inflammation. Practitioners in different parts of the island confessed, that in the epidemic, of which we are treating, little of the inflammatory crust appeared on the blood. This was the case at Yarmouth, the surgeons there found it always florid, and loose in its texture : they bled however ; but they observed, it never gave that permanent relief, which from the straightness of the chest, they expected from it.

In

In a letter from Stamfordham, I find that V. S. was pretty generally used in the beginning of the epidemic, but they found reason to alter the practise, as they became more acquainted with its nature. “ But now,” says my correspondent, “ the disease has taken another turn; though the patient complains of aches, and pains all over him, particularly about the breast; and if you bleed him, the inflammatory crust, as it is called, manifestly puts on its appearance; yet notwithstanding all these symptoms, which indicate V, S. the disease at least, in our part of the country, does not bear bleeding; for the pulse becomes weak, and there is great debility, and langour hangs upon them.” In a second letter on the subject, he says, “ at least it seemed to run a good deal into the low and putrid, so that we were obliged to give cordials, and antiseptics.” Dr. Macqueen says, the only one that died there, was a man that had been twice bled, and he was opinion this contributed to his death.

By what has been said, I would not be understood

understood to mean, a total dissuasion from V. S. in every case. I doubt not but the phlogistic diathesis prevailed so much in many patients, as to indicate V. S. and that much relief was afforded by it. Patients were differently affected, according to circumstances of habit, place, &c. When V. S. was used with proper circumspection to the nature of the epidemic, the habit, &c. and in the robust and strong, no doubt can remain of its utility; but this is far from that promiscuous use of the lancet, which I fear too often took place; it happened frequently that patients insisted on being bled; they never failed to find those who complied with their desire; "many were bled by my young man," says a surgeon, "without advice,"

I suffered from the disease severely, being ill upwards of three weeks, though but a few days confined to bed; the nature of my situation, and the number I was obliged to visit, preventing me from taking that care of myself, which I recommended to others. My throat was much inflamed; the external

nal fauces considerably swelled, with other symptoms of a phlogistic diathesis, yet from universal pains on motion, a lowness of spirits, rigors, and a slight vertigo, I would not suffer myself to be bled. I trusted to gentle diaphoretics, laxatives, and diluting drinks acidulated, with a linctus to mitigate the burning heat and pain I felt in my throat. Dr. Macqueen told me, he suffered also much from it, and being subject to catarrhal affections, which V. S. always relieved, he had recourse to it ; but though he found it productive of some benefit to his head-ach, for a short interval, yet his complaints rather recurred with additional force ; from which he concluded, that V. S. did not give that permanent relief in the disease, as from the seeming inflammatory symptoms, there was reason to expect. We find it was frequently tried, both at Bath and Bristol ; it did not answer in either place.* Neither Sydenham nor Huxham speak favourably of V. S. in the influenza ; yet the latter especi-

* Vide, Treatise on Influen. by Broughton and Falconer.

ally, had good experience, since he practised, in no fewer than in three epidemics of the disease. Dr. Fothergill*, speaking on another occasion of V. S. and dissuading from its free use, unless we be perfectly certain of considerable inflammation of internal parts, has these words, “this is only intended as a caution to some who have been taught to think, that copious bleeding is indicated, whenever a patient complains of pain in any part of the region of the thorax.” And in another place, he cautions us to judge of its propriety, “not from the appearance of the blood alone, for this will often continue fizy, till more be taken away than is compatible with the patient’s situation in other respects;” “for if we lessen the vires vitæ,” says he, “by inanition too much, a disease then takes place, which, probably, will encrease our difficulty; i. e. debility of the solids, and the consequent vitiation of the fluids; the pulse, the heat, the cough, respiration, strength, and age, of the patient, should all be taken into considera-

* Lettsom’s Edit. of Dr. Fothergill’s works. 8vo. V. 1, p. 219.

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tion.” “ Many persons,” he adds, “ live free from complains with fizy blood. The condition, therefore of the blood singly, ought not to determine us ; we should examine all the evidence*.”

The recovery from the disease we always found slow, in such as suffered most from it ; so great was the debility, that it was weeks before the patients strength was perfectly recovered, though in others the disease was slight, and left little marks of debility behind it. This is still a farther proof, that in general there was little of the phlogistic diathesis in the system. We never observe such great debility after pleurisy, or peripneumony, except where phlebotomy has been injudiciously prosecuted ; in such cases, indeed, the patient will not only be weak long after, but obnoxious to serous effusions. The dissections of industrious practitioners shew, that these often follow inflammatory diseases, where the lancet has been improperly used. “ It is an undoubted fact,” says a modern author, speaking of V. S. “ that repeated

* Fothergill, vol. ii. p. 136.

bleeding without necessity has greatly injured many constitutions. The catarrh may frequently attack delicate, relaxed habits, which are rendered highly irritable, from excess of heat, and unhappily obnoxious to the disease, from exposure to cold. In these, as well as in more robust constitutions, the catarrh is often perfectly pure, unaccompanied with peripneumonic affections, or such other symptoms as indicate bleeding *."

Besides, I am apt to think, our constitutions considerably changed within this last century in Great Britain. Luxury, and its enervating effects, render the diseases of this island less inflammatory, than perhaps they formerly were. Diseases that in their nature were always, and even now are allowed to be phlogistic, have appeared within the space of these last thirty years, accompanied with a considerable degree of putridity, viz. the measles. We use less of the robusiter exercises than formerly. Carriages are more frequent, delicacy greater; nay, many of our occupations, introduced by philosophy within

* Vide Abuse of Medicine, p. 60.

the last century, are of a sedentary kind. Our amusements are of a less active nature; our articles of diet are in like manner changed, and infusions of tea, a debilitating liquor, injurious to the nervous system, is in such common use, that even paupers feed on it. Many among the poor drink it three times a day, making it their chief subsistence, among whom, both from its quantity, and bad quality, it is productive of injury. We may add, the immoderate use of spirituous liquors; and of these much is to be attributed to gin. Many among the lower rank are so habituated to it, that both health and substance suffer; hence often proceed jaundice, schirri, and various diseases formed by obstructions in the nobler viscera. All these concur to strengthen an opinion, I have for some time entertained, that our diseases partake much more of debility, than of genuine inflammation, and that the system cannot bear the same evacuations as formerly were in use; even in diseases universally allowed to be of the phlogistic type.

To conclude, I am of opinion, that the fever which accompanied this catarrhal affection, shewed, in most places, more marks of asthenia, than of phlogosis ; that V. S. has been oftener used in it than with permanent relief ; and that should we again be visited with it, under the same circumstances and train of symptoms, we should profit by our late experience, and use the lancet with caution, never letting slip from our minds the nature of the contagion, which certainly appears from its effects to be of a debilitating nature ; and since, to use the words of a certain author, “ if V. S. be powerful in preserving life, it is also powerful in destroying it*.” Thus far of bleeding in the influenza.

The natural crisis of this complaint appears to be by the skin. Diaphoretics, therefore, and diluents constitute the chief part of the cure. Emetics, or rather nauseating doses of antimonials, when early used, seemed very serviceable they are diaphoretic ; they

* Abuse of Medicine.

also prove expectorant when given in full doses ; and in this sense they have been useful in the beginning of the disease. They generally prove laxative, cleansing the primæ viæ ; nay, they become hypnotic, for generally speaking, the sleep of the succeeding night is found, especially when they have been exhibited in the evening. They open obstructions in vessels, whereby the different secretions are more equally performed ; and thus by one simple medicine, we have oftentimes various purposes answered. A happy choice of a simple, the dose, and time of exhibition maturely weighed, will, for the most part, answer better than a multiplicity of medicines jumbled in a prescription, and save the patient, not only from much uneasiness, which would be created by loading the stomach improperly with medicines it abhors, but from unnecessary expenditure of his money. A conscientious physician will also have this in view.

Considerable advantage has likewise been obtained from the prudent use of opiates ; where the cough was severe, as was mostly

the case, they also determine to the surface. Though their chief use seems to consist in the respite they give to the cough, the removal of irritation, and thus allowing time to the mucous membrane to recover its tone; by this means the discharge decreases, and the habit in the mucous glands to a vitiated secretion is thereby checked.

Nitre has been celebrated for relieving the cough, and I, with others, have sometimes had recourse to it. I would however be cautious in its frequent exhibition, as it sometimes renders worse the very symptom for the relief of which it had been administered. Others have made the same observation. “I have known,” says Fothergill, “in common doses of nitre, the saline draughts, and other cooling salts, encrease a cough by irritation *.”

I found a generous diet, where it was in the patient's power to procure it, highly conducive to a more speedy recovery; and even

* Vol. ii. p. 133.

in the course of the disease, many bore a more liberal use of wine, than is generally given in catarrhal affections from cold alone.

After what has been said, I need scarcely dissuade from the warmer sudorifics, or the stronger purges. These were always found as prejudicial, as diaphoretics and laxatives were useful.

A cautious discrimination between it, and other diseases appearing sporadically at the same time, should most certainly be kept in view; for where it proves thus compounded, the method of cure must also vary; and more or less of the inflammatory diathesis prevailing, may lead to mistakes with respect to the genuine nature of the disease. Not only the weather, situation, and constitution, but intercurrent diseases all unite to vary the appearance of the epidemic; to all of which the cautious and prudent practitioner ought strictly to attend.

Pediluvium determines also to the surface, encourages a larger share of the blood from the head and superior parts, to the lower; is

generally followed by sleep, relieves delirium, moderates the cough, and removes sickness at the stomach, from the great sympathy between this organ, and all parts of the body; but especially with the surface. Hence I frequently ordered it, and with advantage; but at first I was timid, considering the disease of a more inflammatory nature, than a little practice taught me it was, and therefore, never suffered the patient to sit in the water above a few minutes; but from its inducing a quiet night's rest, and was often followed by a gentle diaphoresis, when assisted with a few drops of antimonial wine, I continued it in many cases to near half an hour, taking care not to keep the water at so high a degree of heat, as to create too much stimulus, and produce an increased action in the arterious system. This is another remedy, powerful in producing different, and even opposite effects, according to the mode of its application, as is well known to practitioners.

I say nothing of blisters, as I had seldom occasion to use them in my practice. Others;
I find

I find, often tried them with good effects. Where vertigo or delirium occur, or where the breathing is difficult, they will doubtless have their utility, as also where langour prevails. They may raise the pulse where it is thought too low, by rousing the vis vitalis to greater action, or they may remove topical congestion. Though a blister may draw off but a small quantity of serum, yet much relief may be derived from it to the turgid vessels. This will readily be granted, when we consider, how large a portion of the finer vessels, so small a quantity as even half an ounce will fill; and how great an alteration will take place from thence in the balance of the system, by an over proportion to this amount in a given space; but whether their chief use was as evacuants, or antispasmodics, it is affirmed, they were followed by happy effects in this epidemic.

Practitioners in various parts found the bark useful. I doubt not but it was where the disease put on more of the appearance of an intermittent, or remittent, and where it was accompanied with symptoms of putrescency,

gency, which several affirmed it to be. In low situations, such as the fenny parts of Cambridgehire and Lincolnshire, where fevers from marsh effluvia are endemic, the bark, and antiseptics, and tonics, must be more requisite than in drier situations; but I forbear offering any farther remarks on the method of cure, for the same reason I omitted mentioning the other concomitant symptoms.

Although the disease considered simply in itself, may be looked upon as of little consequence, since it was often mild, and seldom fatal, if not improperly treated, either by bleeding, or by the use of too heating and irritating medicines, or by entire neglect, yet its causes, progress, and mode of attack may not be deemed altogether unworthy the attention of the medical philosopher; and to afford some hints in furthering this enquiry, was my principle reason for collecting the foregoing.

I ought however to apologize for my prolixity on a subject where so much has already
been

been said; but as I had early committed to paper a few thoughts on it, and laid them before the public*, I judged it expedient to continue my researches, that I might be the better enabled to supply things omitted in my former publication †.

A R T I C L E X X X V I I I .

Observations on Cancers, by HENRY FEARON, Surgeon to the Surrey Dispensary, and F. M. S.

Read September 22, 1788.

IN a paper of this kind, it is naturally expected, that something should be said concerning the cause, origin, and nature of the disease. Were I capable of throwing any light on this subject, it would give me inexpressible pleasure to gratify this Society with a full and minute account. But I feel

* Vide Short Account of Influenza, by R. Hamilton, 1782.

† For want of room in this Volume, the second Memoir on the Influenza is postponed.

myself

myself incompetent to such an undertaking. Were I even to enter into the theoretical ideas of different authors, I fear I should take up the time of the Society, without affording instruction. And to recapitulate here what I have published on this subject, would be very unnecessary, as I have there candidly acknowledged myself only conversant in the operative treatment of the disease, the nature and successful medical treatment of which, every modest practitioner in physic will readily acknowledge himself unacquainted with. If, therefore, I venture to hazard the opinion I have for some time been inclined to entertain of inflammation being the cause of cancer, or, in other words, that it is always connected with the disease, in a greater or less degree, it is more with a design to excite the opinions of other practitioners, than from the vain attempt to elucidate perfectly a complaint hitherto enveloped in obscurity. For from obstructions, external injury, &c. inflammation in some degree ensues, and I am inclined to think, that were we to treat cancerous complaints, at an early period, as proceeding from inflammation,

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tion, without entering into whimsical or abstruse reveries concerning the remote, latent, or predisponent cause of cancer, we would be much more successful in practice. To this opinion and practice, I was led by the incident I have mentioned in the first of the following cases; and judging that from the cessation of the menstrual evacuation, there would for some time after be a greater quantity of blood in the constitution than it had been accustomed to bear, I thought advantage would be derived from substituting an artificial evacuation instead of that which had ceased.

On this head I decline entering into the doctrine of plethora, being solicitous only to throw even the smallest ray of light on the practical part, leaving the theoretical to those of superior abilities, to whose department it more properly belongs*; and the more I reflect

* That inflammation is either the proximate cause of cancer, or always attends it, I am strongly inclined to believe. But whether this inflammation results from plethora, from obstruction, from the structure of the part, or from some particular excitement therein, I do not presume
to

fect on all the practice I have seen, the more it tends to confirm me in this opinion : for in all cases where I have seen solanum, mercury, martial flowers, or arsenic given, they did harm ; and if from cicuta or opium any advantages appeared to ensue, they were but of short duration.

The cure is very simple, and consists in bleeding, either topical or general, according to the seat of the complaint or part affected.

In the beginning of scirrhus affections of the breast and testis, the mode I have adopted of taking away blood, is by leeches repeatedly applied to the parts. In this course, however, I have often been interrupted by the topical inflammation, produced by these animals, around the parts where they fasten-

to determine. If it can be made appear, that bleeding has removed a cancerous disease, I shall content myself with the importance of the fact, leaving the solution to physiologists. And the more I reflect on all the practice I have seen, the more it tends to confirm me in the opinion, that it has produced, and is capable of producing under certain circumstances, this very desirable effect.

ed. In delicate female habits, I have often lost a week before I could proceed to the re-application of them. When the symptoms lead me to suspect the stomach, uterus, or any of the viscera, to be so affected, that the complaint either is, or most probably soon will become cancerous, I then have recourse to general bleedings. But whether topical or general, perseverance for a sufficient length of time is necessary. Though the pulse never indicated such practice, yet the patients have not suffered by repeated bleedings; on the contrary, when they passed a certain time of losing blood, they felt a return of their symptoms, and of their own accord desired to be bled again. To this plan or practice of repeated bleedings, I joined a milk and vegetable diet, avoiding wine, spirits, and fermented liquors, an open belly, and saturnine applications; I will give some cases by way of illustrating the practice more to the readers satisfaction.

A poor woman about fifty years of age, was admitted a patient at the Surrey Dispensary; she said she had long been in a bad
state

state of health, the cause of which she could not attribute to any irregularity in living. She was of a delicate habit of body, and not accustomed to the use of spirituous liquors. She suspected that her complaints originated from her having been exposed for some time to the inclemency of the weather in 1785, in an open yard, as she found herself generally indisposed at that time, and went to bed, having taken something warm, with the view of promoting the usual discharge (of which she had not any appearance for six weeks), and also to relieve a sickness and pain at her stomach and back, symptoms which she supposed to have arisen from the obstruction of her menses. But in this flattering hope she was much disappointed, as they never after appeared, and her pains continued gradually to encrease (and to use her own words, extend all over her bowels, particularly after eating. These symptoms continued without any intermission (except of a few days at times) for sixteen months, during which time she had repeatedly applied to several regular as well as itinerant practitioners, without meeting with the least relief,

lief. Vomits, blisters, purgatives, and every other remedy that had been tried, only increased her complaints.

In the summer 1786, I first saw her at her lodgings in the Mint, with her head and shoulders raised, respiration being difficult; she was most amazingly reduced in flesh; her urine was small in quantity, and high coloured; she complained of thirst, was costive, her pulse small and frequent. Her complexion was of a cancerous hue; she complained of cold fits, attended with shiverings, and of a swelling on the right side of her belly, on examination of which I found the abdomen was considerably distended by the disease, which I distinctly felt considerably indurated. As I have already observed, she was very much emaciated; her appetite had been on the decline for some time before I saw her; no solids would lie on her stomach, as a vomiting ensued soon after eating, attended with a discharge of blood, and very acrid offensive matter. Purgatives had the same unhappy effect, so that her body was necessarily kept open by clysters only; and she

she was nourished by liquids. All these symptoms encreased for some time after I saw her, when death eased her of the load of life, and freed her from sufferings that exceed all description.

Leave being obtained to open the body, the stomach was found to be the part diseased, the great extremity was of a natural appearance; but contained a great quantity of a chocolate coloured fluid, so extremely offensive, that the smell of it produced immediate sickness, even to those accustomed to every kind of dissection. The middle of the stomach, small extremity, and pylorus, formed a compound mass, which was closely united to all the neighbouring parts. On the middle and fore part of the stomach, there was an ulcer of about the size of half a crown, with uneven ragged edges, through which some of the fluid was discharged into the cavity of the abdomen. The duodenum, ducts, and gall bladder, all adhered strongly to the liver, and formed a mass of great size. On being laid open, it discovered an extensive cavity, with large cancerous knobs appearing

pearing on its surface. But whether this was the original cavity of the small extremity of the stomach, or of that part of the duodenum, running in its neighbourhood, or of the general adhering mass destroyed by internal ulceration, is difficult to say.

Remarks.

The narrative of a case which is beyond the reach of our art, is not a pleasing undertaking. A cancer of the stomach is one of those melancholy cases, which is beyond the skill of the most eminent of our profession; yet, as it is the duty of practitioners to avail themselves of every opportunity of determining the precise nature of disorders by dissection, and of communicating them to the public, this case, and four other cancerous affections of the stomach, in my collection of diseases, any gentleman of the Society, who will do me the honour of calling at my house, may examine; they are much more extensive than any I have met with in any other collection, or read of, either in Morgagni, Bonetus, or any other. These

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cases, therefore, may not be unacceptable to the Society, especially as I flatter myself I have by accident been able to throw some light on the nature, treatment, and prevention of this loathsome disease ; which I shall give in a brief statement, just as the facts occurred.

Another reason, I might add, that three ladies who had apparently incipient cancerous affections of the stomach, who have by this means been cured, have requested that the symptoms and treatment might be made public.

C A S E II.

IN the year 1784, a lady in Clifford-street, consulted me about a lump she had just discovered in her right breast ; the first symptoms she said was a stretching fulness in the part, attended with an oppression at the stomach. As these complaints were but slight, and exactly similar to those she had been accustomed

customed to, preceding the appearance of her menses, or what usually succeeded conception, she did not think it necessary to take an opinion of her case for a fortnight afterwards, when an increased hardness attended, with a darting pricking pain, particularly after being handled, very justly alarmed her. She was forty-nine years of age, and had no appearance of the catamenia for six weeks before she had perceived the lump, which was clearly a scirrhus forming that must in a little time require an operation. Between the seventh and eighth week from the former appearance, she had a plentiful flow of the catamenia, which lasted longer than usual, during which time the lump subsided, and the pain went off entirely. We were agreeably surpris'd, and attributed the cure to the return of the menses; and we agreed, when these ceased entirely, if her complaints returned afterwards, to substitute bleeding, to the amount of three or four ounces, every six weeks or two months, to keep her body open, and make her live abstemiously, by which she has remained free from a relapse these three years.

I have met with a great many cafes since, at the ceffation of the menfes, fimilar to that mentioned, which I have treated with the fame fuccefs.

C A S E III.

ELIZABETH ROBINSON, being admitted a patient at the Surrey Difpenfary, in April 1784, faid ſhe kept a coal-ſhed in Bermondſey-ſtreet; and that ſhe had for ſix months been afflicted with a ſwelling and pain in her breaſt; that ſhe heard it was cancerous, and deſired my aſſiſtance. The tumor was incompreſſibly hard to the touch, and gave her very acute pain, after being handled; the nipple was contracted, and the veins of the ſkin varicous; the lancinating and darting pains encreaſed with the diſeaſe. Being perfectly ſatiſfied that it was a true ſcirrhus, I put her under a courſe of cicuta in as large quantities as ſhe could poſſibly bear, guarding againſt its narcotic effects, and applying the

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the *Aq. Veg. Min.* externally. By these means and a proper regimen being observed, she thought herself relieved for a time; but at the end of eight weeks, not receiving a cure, she became tired of my prescriptions, gave up her letter of recommendation unknown to me, and I heard no more of her for two months, when she returned and gave me the following account; viz. She had been informed, that the gentlemen of the Westminster Infirmary were famous for the cure of cancerous complaints, that she had been two months under the care of Mr. Justamond, without experiencing much relief, and therefore was returned to submit to whatever I thought proper. I immediately took her under my care, put her upon a milk and vegetable diet, and ordered four leeches to be applied every second day. This plan soon produced a diminution of the size of the disease, pain, and all its concomitant symptoms; and in nine weeks she returned thanks to Mr. Johnson, the Governor who recommended her, being perfectly cured. From the loss of blood she became very thin and pale, infomuch that her acquaintance apprehended

hended she was become consumptive, and advised her not to lose any more blood. But the uncommon benefit she experienced, induced her to persevere, and she soon recovered her health and vigor, which she has enjoyed without the least interruption ever since.

In a conversation with Mr. Juslamond upon this case, he candidly acknowledged he had given the martial flowers and corrosive sublimate, without the wished-for success.

C A S E IV.

I WAS consulted by Mr. —, aged fifty-one, for a scirrhus of the testicle, which had been two years forming, during which time, the size, weight and pain, had considerably encreased. The spermatic chord was a little thickened, and the testicle hard and considerably enlarged. The darting pains were so frequent at times as to deprive him
of

of his natural rest. The case having been suspected to be venereal, he had been put under a well-conducted course of mercury for five weeks, which only encreased his complaints. Being an inhabitant of Colchester, sea-bathing was fully and fairly tried without the least good effect, on the supposition that his disease was scrophulous.

On his application to me, I did not entertain a doubt concerning the nature of his complaint, and therefore ordered ten ounces of blood from the arm, and leeches to be applied to the part at least thrice a week. To this I joined an abstemious regimen, and kept his body open. This plan was continued only ten weeks (during which time he was occasionally seen by Mr. Hamilton, Mr. Beal, an India surgeon, and Mr. Day of Colchester) when he was perfectly cured.

C A S E V.

A very delicate female, of respectable family, only nineteen years of age, who had not been married, was attacked with a sickness at her stomach, attended with frequent vomitings, and pain in the region of her loins, which was encreased on bending her body forward. She also complained of great pain about the uterus, which she described to be constant, extending down her thighs, with a frequent propensity to discharge her urine, in passing which, she suffered considerable pain; it also stopped suddenly, the pain continuing for some time after. She had likewise a discharge of mucus from the urethra, accompanied with straining and uneasiness. Her pulse was quick and low (about ninety) as in hectic fever; her tongue white. She was sometimes constive, and at other times subject to a diarrhæa, which continued for some days. Her physician, a gentleman of the very first eminence in town, prescribed for her, and desired she might be examined with the sound, as the symptoms gave reason

to suspect there was a stone in the bladder. I accordingly examined her, but no stone was felt. The symptoms continuing and encreasing in violence, the Doctor prevailed on the lady to submit to a second examination, which she complied with, but still no stone could be found. To these complaints were added, during the last four months of our patient's life, the usual symptoms attending on hectic patients.

I obtained leave to open the body, and, on examination, found the viscera of the abdomen and thorax perfectly free from the least appearance of disease. But on viewing the peritoneum, extending over the uterus and bladder, I discovered marks of inflammation; and, on further examination, found all the contents of the pelvis considerably inflamed. Having laid open the urethra and bladder, I found the inflammation general and uniform throughout both, without the least appearance of a stone.

On opening the uterus, I found a scirrhous of the cervix uteri, which unravelled the
cause

cause of our patient's death, and which had produced the inflammatory appearance throughout the contents of the pelvis.

I have thought proper to record this case, as a very important one; because it proves, that at a very early period indeed, this disease may prove fatal. We should therefore be so far on our guard, to expect the existence of this disease at any period of life, when the symptoms lead us to form such opinion; which, had we done in this case, we might probably have saved our patient, by adopting the plan I have just ventured to recommend. Another circumstance, in this case, highly deserving attention is, that a disease of the uterus, may produce symptoms, very similar to those of a stone in the bladder.

Conclusion.

To those very important facts of bleeding, being a specific, in the early stages of scirrhous complaints, I must also add, that even in apparently reduced and shattered constitutions, when the disease has been of long continuance,

tinuance, attended with affections of the lungs, scirrhus of the kidneys, liver, or any of the viscera ; and lastly, with cholicky pains in the bowels, a cadaverous countenance, becoming yellow, wan, and fallow, the disease being entirely beyond operation, cicuta and opium failing in their usual heavenly effects, small bleedings have the most happy, the most immediate, and the most desirable good effects, in mitigating the sufferings of the patient, whose approaching fate we are unable to prevent.

To those cases many more might be added ; but I think the facts sufficient : in confirmation of which, I have the pleasure to inform the Society, that any member who will call on me, may have ocular demonstration of three cases I have at present under my care, which are yielding to this method of cure.

A P P E N D I X.

*Some Account of the Effects of Lightning, by
Mr. J. PARKINSON, of Hoxton, Surgeon,
and F. M. S.*

Read February 4, 1787.

ALTHOUGH the circumstances related in the following paper, may not merit attention, either from their novelty or curiosity, yet it is hoped they will not be thought entirely useless and uninteresting, as, perhaps, by being compared with other accounts of similar accidents, they may afford some small assistance

assistance in the investigation of the nature of the electric fluid, and of its mode of acting upon the animal system.

During a violent storm, which happened on Tuesday, July 17, 1787, a house in Crabtree-Row, near Shoreditch Church, was much damaged by the lightning; two men, also, one of whom was within the house, the other passing by, were struck by it at the same time.

My attendance being requested, I immediately repaired to the house, which I had no sooner entered, than I was disagreeably affected by a strong sulphurous smell, which, although it was, according to the accounts of the persons present, considerably lessened, was yet extremely pungent, and very different from that peculiar odour produced by the electrical machine, even when batteries of considerable magnitude have been discharged: the smell, in the present instance, more resembling that which is occasioned by the burning of sulphur.

My attention was first called to the man who was passing by the house when the lightning struck him; he had been taken up to all appearance dead, and by the accounts of the neighbours, had remained in that state upwards of a quarter of an hour; but, when I saw him, the vital organs had resumed their functions, although so very imperfectly as to render the circumstance of their having been suspended, highly credible: respiration was performed with much difficulty and irregularity; and the circulation of the blood still carried on so partially as not to be discoverable at all by the pulse in the lower extremities; nor, without extreme attention, in the arteries at the wrist, although the pulsation of the carotids, at the same time, was not perceptibly different from that which might be supposed to be natural. His head was bent considerably backwards, in which state it remained immoveable, notwithstanding his endeavours, and those of his attendants, to bring it forward. His countenance was flushed; and his eyes, which he had almost lost the power of moving, were red, and, in consequence of their not being both directed

directed to the same object, appeared wild and staring, which appearance was farther increased by the eyelids being widely opened, and the pupils considerably dilated. His hands and legs resembled those of a corpse, being excessively cold, and of a dark livid colour, nearly approaching to black. A large red streak appeared on his right side, and several lesser ones on his legs, the skin in all those places being evidently scorched. He complained of a total loss of sense and motion in the lower extremities, and of much pain in the head and chest; which last was aggravated by a frequent cough, by which a considerable quantity of blood was thrown up.

The symptoms appearing to me to point out a congestion of blood in the head and lungs, six ounces of blood were taken from the arm, though with much difficulty; constant friction of the arm being found necessary to produce the discharge of even this quantity, by which, however, the head and chest were much relieved. He was then put to bed, between the blankets, his legs
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and hands being wrapped in flannels, wetted with volatile liniment, and a draught was given him, containing 18 grains of the volatile alkaline salt, which was washed down with half a pint of weak brandy and water, as hot as could be drank : an universal sweat soon broke out, which was followed by an easy sleep, from which he awoke so much relieved, that, when I saw him, two hours after, his head and chest being free from pain, the spitting of blood stopped, the muscles at the back of the neck relaxed, and the use of the limbs restored, I had him removed in a coach to his own house at Limehouse*.

The other man was in a shop, up one pair of stairs, and near the window, at the time of the accident. He laid senseless, I was informed, for some minutes, but, when I saw him, he was considerably recovered. Like his fellow sufferer, he complained of pain in his head and chest, and difficulty of breathing, but he had no spitting of blood. His

* I have since been informed by him, that a pain came on so violent in his hands and legs, as to confine him for a fortnight afterwards.

hands had the same cadaverous appearance which was observable in the lower extremities of the other man ; and, if possible, in a greater degree, as the fingers towards their ends were shrivelled and black ; his legs, also, were affected in the same manner, but in a less degree. A red streak, about two inches wide, passed down his right side, from which, on each side, several ramifications branched out, exactly representing, in figure, those vivid coruscations, which are so frequently seen to fly off, from any little pointed elevation on the surface of an electrified insulated conductor. A similar, but lesser streak, with similar branches, appeared on his right arm, and on the fore part of each leg and thigh ; from all these he felt considerable burning pain. One of his sleeve buttons was melted, but his wrist was not in the least burnt, the skin being only discoloured, as if with smoke. One of his buckles was also melted in two places, in the part nearer the leg, and in that nearest the toes, by which his foot was rather deeply burnt. He was treated in every respect like his fellow sufferer, and with the same beneficial effects.

effects. By the next day he was entirely free from all his complaints, except the burning pain which he still felt where the lightning had so beautifully marked him; this, however, was soon lessened by the use of a saturnine lotion; the streaks becoming, in two days time, of a brownish colour, and, in a few days more, no other vestige remained than the roughness of the cuticle, which was then peeling off.

Upon examining the house, the tiles were found to have been broken by the lightning in several places; the frame of a sash window on the ground floor, was split, where the hinges were fixed, and one of the hinges was driven, at its upper end, nearly half an inch into the wood; whilst the lower end was, with the nails, raised up to about the same distance, the iron at this end being evidently melted. The glass was broken, and the lead of the shop windows, up one pair of stairs, melted in so many places, as to shew plainly, that the lightning had taken its course, in seven or eight different lines, on the outside of the house, as indeed might

have been expected, from the house having been wetted by the preceding shower *. Wherever the lightning had changed its conducting substance, there it had left evident marks of its power ; and this appeared to be in proportion to the difference of conducting power between the two substances ; thus, by its passage from the bricks to the wood, but little injury was done ; but when it reached the iron hinges, the wood was split and the iron melted : and again, where it had passed from the frame of the window to the lead, the lead was melted, and the glass broken, and covered with a black impalpable powder.

One circumstance which was observable in each of the men, merits more particular attention, as it seems to mark plainly the mode in which lightning affects the animal system ; the circumstance alluded to, is the

* It is well known, that if the electric spark be made to pass over a non-conducting substance, the surface of which is thinly covered with water, the stream of electric fire will be split into several lesser ones, which will pass on to the nearest conducting substances.

change

change of colour which took place in the extremities: these, when I first saw them were, as I have already said, nearly black; but, upon friction being used to them, they became of a deadly white, which hue they preserved as long as the friction was continued; but upon the omission of that, the former colour returned. From this circumstance arose a very singular appearance on the legs of the younger of the men; for, previous to friction being used to them, the ramifications, which were then of a deep crimson, were displayed on a dark purple ground; but after the legs had been rubbed a few seconds, the ground became white, and the branches of a pale pink.

May it not be supposed, from the above appearances, that the blood vessels of the limbs had so far lost their contractile power, in consequence of the excessive action produced immediately before, by the violence of the stimulus which had been applied, that the arteries were no longer able to protrude the blood; but remaining inactive, or nearly so, suffered the blood to pass into them,

which required the aid of friction, to urge it back through the veins to the heart? That the electric fluid acts as a stimulus upon the animal system, must, I believe, be allowed; but that its stimulating effects are more transient, and the succeeding state of debility consequently more rapidly produced, than what results from the application of any other known stimulus, must, I think, be also allowed. Strongly illustrative of this were the effects which followed the application of electricity to a youth, who was drowned; he had been under water upwards of one hour, and two hours more had been spent in fruitlessly attempting to procure his recovery. At this time I saw him, and having in my pocket a portable electrical machine, I was induced to make trial of the effects of electricity; as soon therefore as a small charge of the phial was supposed to be procured, I, to try the strength of the charge, took the shock, making one arm of the youth a part of the circuit made by the electrical fluid; the shock to me was trivial, but its effects on the arm of the corpse surprized me; for the arm, hand and fingers, which were extended,

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tended, were, as if convulsively, bent at every joint; the discharge of the phial was repeated, but with much less effect; and by a third discharge, scarcely any sensible effects were produced; nor after this could any alteration be discovered, although several much stronger charges were made to pass through the arm. The quantity of irritability, therefore, which had been so strongly retained for upwards of three hours after death, was, by three discharges of the phial, exhausted in as many minutes.

C A S E.

A MAN about forty-five years of age, applied to me on account of a trifling hurt on his shin, observing, that he had been but too liable to such accidents, since he had had the misfortune to lose his sight. On asking him the cause of his blindness, he informed me, that about seven months before, he had been sent one stormy night, by his master, a farmer at Edmonton, to house some cattle; and

and that whilst he was in the field, a flash of lightning, of amazing brightness, came across his face, and at the same instant he heard a loud clap of thunder; that he was struck down, and unable to rise for some seconds, but was not deprived of his senses in the least; that he immediately felt excessive pain in his eyes, which, however, soon went off; but that he had ever since been entirely deprived of his sight. Never having had an opportunity of examining the eyes of any one, who had been said to have been stricken blind by lightning, I desired him to let me examine his eyes, to which he readily consented. The eyelids were very closely shut, and had rather the appearance of a flat, than a convex surface, which induced me to expect I should find the eyes themselves considerably lessened in their dimensions, if not totally destroyed. After several unsuccessful attempts to force open the eyelids, I was so entirely foiled, that I should have desisted, had not the man himself anxiously pressed me to make another trial; I therefore renewed my endeavours, and at length forced them open so far that I could distinctly

tingly perceive the eye still retained its natural figure, and that the cornea was still bright and transparent, but the pupil was exceedingly contracted. The moment the eyelids were raised from before the pupil, he cried out in ecstacy that he saw the light; but added, that it gave him such acute pain that he could not bear it any longer, and begged that the eyelid might be suffered to close; he had seen, he said, a blaze of light, as bright as that which had first destroyed his sight. After resting a few minutes, he intreated me to force them open again, that he might once more see the light; I therefore again repeated my attempts, and with still greater success, as I now opened them wider, with less force, than I had before been obliged to employ. The contraction of the eyelids, which immediately succeeded, seemed also to be less violent; but he could not yet distinguish any particular object, owing to the anguish he felt as soon as the light darted on the retina; nor was it until this troublesome operation had been repeated seven or eight times, that he could distinguish the frame of
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the window. The contraction of the eyelids being much lessened, and a slight inflammation of each eye having come on, we, for that time, desisted from any further efforts. The eyes were ordered to be constantly bathed with cold water, and as the violence of the spasm was evidently lessened, by the application of external force, he was recommended to force them open two or three times in the remaining part of that day.

When I saw him the next day, the inflammation was much lessened, and vision was tolerably distinct, and accompanied with considerably less pain; the disposition in the eyelids to contract, was also so much lessened, that very little external force was necessary to open them. In two or three days more, he had recovered the free motion of the eyelids, and excepting an excessive sensibility of the retina, which still remained, was without complaint.

It seems as if the excessive brightness and sudden flash of the lightning, had brought on
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so strong a contraction of the orbiculares palpebrarum, that it ended in a spasm of those muscles, which spasm continued until overcome by external force.

An Account of several Phænomena, which occurred upon opening the Body of a Female Infant of premature Birth, who died a few Hours after Delivery, by T. POLE, Surgeon, F. M. S. to which is annexed an Engraving of the Uterus.

Read September 22, 1788.

I WAS induced to open the body of this infant, from observing an unusual enlargement in the region of the liver, which viscus proved to be considerably larger than is usual even in the foetal state. In examining the other abdominal viscera, I found but one kidney, and that on the right side; and in the place of the left was found the capsula renalis. Looking into the pelvis, I also observed a lusus naturæ of the uterus
and

and appendages ; the uterus itself was of a conical figure with its apex incurvated toward the right side ; and immediately from the apex arose the right fallopian tube, about its natural proportion and figure : the ovarium was also on that side attached to the uterus, near its apex. The left fallopian tube arose from the inferior part of the cervix uteri, and was nearly twice the length of the other ; the ovarium at that side was at a very considerable distance from the uterus. Through the right fallopian tube quicksilver passed freely into the uterus, but not through the left.

EXPLANATION of the PLATE.

- A. The uterus.
- B. Os uteri.
- C. A portion of the vagina.
- D. The right fallopian tube.
- E. The left fallopian tube.
- F. The left ovarium.
- G. The right ovarium.
- H. The urinary bladder.

On the 24th of September, 1787, Mr. JAMES HILL HOOPER, Surgeon, and one of the Secretaries of the Medical Society, communicated a Case of an Hæmorrhage from an Ulcer on the Penis.

G—— T——, aged about twenty-seven years, had been taking mercurials of his own prescribing, for a month before he applied to me, June the 22d, 1787, for the cure of a venereal ulcer, situated upon the superior part of the glans penis, and nearly the size of a sixpence. In about ten minutes after he left me, he was obliged to return hastily, in consequence of a very considerable hæmorrhage from the middle of the ulcer, but which was soon stopped by the application of lint and flour; in the evening it returned with great violence, and being myself engaged, and my assistant who was with him, not able to stop the hæmorrhage, Mr. Foster of Broad-street, was sent to, who
was

was so obliging as to attend immediately ; and from having frequently seen the good effects of the lunar caustic in similar cases, very judiciously applied it in the present, over the whole surface of the ulcer, with apparent good effect ; as the hæmorrhage was restrained for that night, and the two following days ; on the third it returned slightly, but on the fourth very violently. Mr. Foster was again sent to, and finding the above method ineffectual, had recourse to the needle and ligature, by which means he secured the bleeding vessel, which remained in that state for some days.

The patient had by this time lost a very considerable quantity of blood, consequently was very much reduced ; we therefore gave him the decoction of bark, with elixir of vitriol ; but on the 2d of July, another very violent hæmorrhage came on, which from his now emaciated state, threatened a speedy dissolution, as his pulse was scarce perceptible.

It had occurred to me before, to make use of the sponge, which, however, I omitted, from an expectation that the other methods would have proved successful; but as they did not, I now applied a piece of sponge, adapted to the size and shape of the ulcer, which was by this time much encreased; I then poured a strong solution of *Vitr. Cærul. in Aqua*, upon the whole, which immediately stopped the hæmorrhage.

My attention was next called to check that dissolved state of his blood, which was evidently the cause of his repeated bleedings; for which purpose I gave him, beside the bark, which he still continued the use of, one mixture with the *Sal. Absinth.* and another with a sufficient quantity of *Succ. Limon.* to produce an effervescence in the stomach; and on the following day, I had the satisfaction to find my patient rather better, without the least appearance of hæmorrhage. In about seven days, the sponge came away without any pain, and left a clean granulating surface, which in about three weeks perfectly

perfectly healed, without any further unfavourable symptom.

He continued the use of his medicines about ten days, and is now perfectly restored to his health and friends.

Two Experiments on the Mechanism of Vomiting, Supplementary to a Paper lately read before this Society on that Subject, and inserted at page 250. By Mr. JOHN HAIGHTON, Surgeon, F.M.S.

IN the paper which I had lately the honour of reading, I attempted to prove that the mechanism of vomiting was inexplicable from any force inherent in the stomach: and that the most violent stimuli when applied to it, either externally or internally, were insufficient to produce a regurgitation of its contents, without the concurring efforts of the diaphragm and abdominal muscles.

It would have been then in order to inquire whether the assistance which the diaphragm

diaphragm and abdominal muscles afforded, was equal to this effect without the stomach: and whether in the affair of vomiting, this viscus be considered only as a passive organ, as has been argued by Bayle, Chirac, and Duverney: but my attention was at that time diverted from this inquiry by the intervention of other pursuits.

While I was engaged on a subject, which at first seemed but little allied to the present, the idea suggested itself. Being about to divide the par vagum of a living animal, I was naturally led to contemplate its distribution; and to consider in how great a degree it contributed to the functions of the stomach; and likewise what changes would be induced upon that organ from a privation of its influence.

Experiment. I exposed the par vagum about the middle of the neck of a dog, and having, by careful dissection, separated it from the carotid artery with which it intimately coheres, I cut it through. The same was performed on the opposite side. A very violent and distressing sickness, immediately ensued,

great restlessless, frequent and violent efforts to vomit very soon supervened, though no emetic had been given. During these efforts, the abdominal muscles seemed to act with great force; and notwithstanding the continuance of them for upwards of two hours, nothing was discharged. In a few hours afterward he died.

Upon examining the stomach, it contained a considerable quantity of food which had been taken about an hour before the experiment.

As the nausea, which in this instance seemed to be the natural consequence of the experiment, was insufficient to produce vomiting: I wished to ascertain how far the torpor which had been induced upon this organ by the division of its nerves could be suspended; and whether the violent nausea (which had in this instance been attended with fruitless attempts to vomit,) could be carried into effect by the stimulus of an active emetic.

Expe-

Experiment. Having divided the par vagum of another dog in the manner described in the last experiment, ten grains of Emetic Tartar, dissolved in two ounces of water, were immediately forced into his stomach. The same restlessness and nausea ensued, but never discharged any thing from the stomach, although frequent attempts were made: at length a dyspnœa supervened, and in about eight hours he died.

On examining the stomach, its internal coat was very much inflamed at its right extremity, and about half a pint of reddish coloured fluid, tinged with blood, was contained in it.

From the experiments made, both in this and in the preceding part of the paper, with a view to explain the mechanism of vomiting, the following conclusions are deduced.

First. That the stomach, though excited by powerful stimuli, is unable to discharge its contents, if the assistance of the diaphragm and abdominal muscles be taken away.

Second. That the most vigorous exertions of the diaphragm and abdominal muscles, unaided by efforts of the stomach, are equally futile. And

Third. That vomiting can only be produced by the concurrence of them both.

The History of Hydatids discharged with the Urine, communicated by FEILDING BEST FYNNEY, Esq. of Leek, Surgeon, and C. M. S.*

Read November 3d, 1788.

ABOUT eighteen years ago, I tapped Sarah, the wife of Thomas Rowley, of Ipfstones, in the county of Stafford, and took from her nineteen pints of water; ever since which time, she hath enjoyed a tolerable state of health, having never had the least appearance of a return of the ascites; till on Tuesday, April 29th, 1788, her husband

* Some of these hydatids were sent to the Medical Society, which appeared exactly similar to those described and figured at page 32 of this Volume.

came and informed me, that, on Sunday the 27th, she was sensible of a sensation, as though something snapped (to use her own expression) within her belly, about the region of the bladder; that, soon after, she had a difficulty of parting with her water, which was tinged with blood, with substances from the size of a pea to that of a duck's egg, (the largest sizes being burst) but without shells, and similar to wind-eggs, floating in it, which I told him were hydatids. The next day, he sent me a few, and the day following (May 1st) I visited her, on which day, she had parted with some of the largest sizes, and, on the succeeding day, with two; since which, none have passed, but she hath been in exceeding great pain; hath frequently parted with her urine in small quantities, constantly of a deep coffee-colour, and, as it were, by a spasm upon her bladder; for no sooner an inclination to pass urine came on, than it gushed involuntarily away from her.

On Monday, May 12th, I visited her, passed the catheter, and brought away about four ounces of turbid urine, with some pus,

and a little gravel, by which she was much relieved.

I intended, on the succeeding day, May 13th, to have cleansed her bladder, by alternately injecting a balsamic and detergent wash with a syringe, and as often drawing it off with a catheter; but, from that time, she would neither take any medicine, nor suffer any thing to be done to the part, but languished till the 22d, when she died,

It is probable that the snapping, she was so very sensible of, might be occasioned by the bursting of one of the larger cysts in the bladder.

The excruciating pangs she laboured under, were palliated, during my attendance, by anodynes, aperients, and diuretics.

It may be necessary to mention, that she had never been pregnant, but had menstruated regularly, ever since she was tapped.

My patients being numerous, and situated at a great distance from each other, I had not an opportunity of obtaining permission to open the body.

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