A commentary on apoplectic and paralytic affections : and on diseases connected with the subject.

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A COMMENTARY ON APOPLECTIC AND PARALYTIC AFFECTIONS. AND ON DISEASES CONNECTED WITH THE SUBJECT.

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Rationalem quidem puto medicinam esse debere; instrui vero ab evidentibus causis, obscuris omnibus, non a cogitatione artificis, sed ab ipsa arte rejectis.

CELSUS.

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M.DCC.XCII.

"to ſee this ſubject re-conſidered,
"and the doubts which preſented
"themſelves to him cleared up by
"experience; or that a practice
"ſomewhat different from that
"generally adopted ſhould be re-
"commended."

After conſidering the different opinions of ſome of the principal writers who have treated on apoplexies and palſies, and the effects of the remedies in general uſe for the cure of them; I have been led, from the confuſion in which I found the ſubject involved, to make a new arrangement, and to diſtinguiſh the different ſpecies of theſe maladies; by which we are able to point out when opium, and when other ſtimulant ſedatives are proper, when they ought not to be uſed,

and

and when other remedies ought to have preference; and it is hoped the regulation we have made, will remove that embarraſſment the reader muſt manifeſtly labour under, in the common deſcription of theſe diſeaſes; writers having, in the catalogue of ſymptoms, not omitted to collect thoſe which belong to other complaints; nor will the intelligent reader be diſpleaſed with ſeeing that the practice recommended, aroſe from accidental obſervation, inſtead of reaſoning *à priori* on the ſubject.

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In the following commentary, we conſider the brain diffuſed through and over every fibre in the whole body, making one continued and connected ſubſtance, in the manner deſcribed in a diſſertation we have elſewhere written on the brain and nerves. Hence the well-known conſent of parts we ſhall have occaſion to ſpeak of,

and

and conſequently we uſe the words brain and nerves ſynonymouſly, both being comprehended in the *brainular ſyſtem*. Nor will the introduction of a new term, I apprehend, be thought improper, when we call to mind that even ſo late a writer as *Monro*, found it neceſſary, to explain what he meant by the words nervous ſyſtem; whereas the term we have choſen, according to the above ideas, at once explains itſelf.

The words *irritate* and *ſtimulate* are commonly uſed as ſynonymous terms; but in this commentary they are employed with very different meanings. To irritate is to fret and inflame, or at leaſt it has a tendency to inflame; whereas to *ſtimulate*, is to warm, cheriſh, and exhilarate,

exhilarate, without fretting and inflaming.—Seeing there are ſtimulants without any ſedative property*, and vice verſa†, we have uſed the term *ſtimulant ſedative*, when the remedy poſſeſſes both theſe qualities.

* Witneſs many cordials

† Lead is a powerful ſedative, without any ſtimulant property.

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A COMMENTARY ON APOPLECTIC AND PARALYTIC AFFECTIONS.

A

COMMENTARY

ON

APOPLECTIC AFFECTIONS.

A COMMENTARY ON APOPLECTIC AND PARALYTIC AFFECTIONS.

"Requirebatur cognita apoplexiæ hiſtoria, ante-
"quam de paralyſi vel caro, ageretur."
Baron VAN SWIETEN.

PART THE FIRST. SECTION THE FIRST.

A brief Hiſtorical Account of Apoplexies in general.

THE Greek word Αποπληξία, uſed by Hippocrates, Aretæus, and other Greek writers from Αποπλησσω, to ſtrike ſuddenly, was tranſlated morbus attonitus *, or more commonly ſideratio by the Latins, and apoplexy, ſtroke, or blaſting

* Celſus, lib. 3. cap. 26.

by the Engliſh. But this appellation does not particularize any one diſeaſe, and of courſe thoſe who have explained it, often comprehend, in their account, a variety of complaints.

Nervous apoplexy, in what manner it affects the body.

It ſeems, however, to be a ſudden * affection in the brainular ſyſtem, by which the vital principle is more or leſs injured, and a loſs of ſenſe and motion, except in the thorax and heart, and the veſſels connected with the heart, follow †. But to have clear ideas how it came to paſs that different

* Cælius Aurelianus, whoſe book is a ſhort comment on former writers, ſays, "Apoplexia dicta eſt, "quod tanquam ex letali percuſſu repentinum faciat "caſum. Eſt autem oppreſſio ſæpe ſine febribus, "repentina, et quæ ſine febribus ſenſu privet cor-"pora, ſemper celerrima, & nunquam tarda eſſe pro-"batur." De morb. acut. lib. 3. cap. 5.

† The ſecretions, in ſome degree, are carried on for ſome time, after the commencement of the diſeaſe, and profuſe ſweating frequently accompanies. I have known aſſa fœtida clyſters bring on a violent ſweat, but without any relief to the patient; all which ſeems to ſhew, that the leſſer order of veſſels do not ceaſe to perform

different comatoſe diſeaſes have been called apoplexy, we muſt conſult Hippocrates, our firſt writer, and for this purpoſe we will collect together into one reading, his ſcattered account of this malady; remembering that he ſpeaks of apoplexy and palſy by the ſame name: wherefore, it ſeems proper to take a view of his opinion before we proceed, becauſe it will expoſe the ſource of error, and is not, I believe, generally known.

He ſays, " * A perſon in health is ſud-
" denly ſeized with a pain about the head,
" the voice is immediately intercepted,
" he ſnores and gapes, and if ſpoken to
" or moved, he only ſighs; is inſenſible,
" and makes a great deal of water with-
" out knowing of it. If he becomes mute
" and ſnores, he dies within ſeven days,

perform their office, ſo long as a circulation is carried on through the arterial ſyſtem, which may readily be accounted for by the doctrine advanced in our medical ſurgery, vol. 1. p. 306.

* De morb. lib. 2. ſect. 21. aphor. 51. lib. 6.

" unleſs a fever comes on, and then he " generally recovers *."

" This kind of diſeaſe more generally " happens to people advanced in years †, " than to young ſubjects; but the moſt " uſual time of attack, is betwixt forty " and ſixty years of age. It is more com- " mon in winter and rainy ſeaſons. The " brain ſuffers and becomes morbid, and " if it be eroded, ſuſtains a violent de- " rangement; hence delirium, the brain " is convulſed, and involves the whole " man in the ſame perturbation; he be- " comes incapable of ſpeaking, and ſuf- " focation enſues ‡."

At

* The ſame obſervation is made in ſeveral other places, but we do not find it holds good in this climate; perhaps it may allude to the palſy, of which we ſhall take notice in its place.

† On the contrary, ſee Dr. Falconer's account, Lond. Med. Society, vol. 2.

‡ Lib. de glandulis, No. 9. To underſtand this paſſage properly, the preceding part of this book ſhould be read, and we will beg leave to offer a tranſ-

lation

At the ſpring and autumn, a metaſtaſis in attrabiliary diſorders is dangerous, and indicates apoplexy, ſpaſms, mania, or

lation of ſo much of it as concerns the ſubject, in hope of affording pleaſure to an inquiſitive mind, when the original, or a Latin tranſlation may not be at hand.

HIPPOCRATES, in his book on the glands, properly ſo called, after deſcribing the ſituation, ſtructure, uſe, and diſeaſes, proceeds to make ſome obſervations on the brain; which he conſiders as having a near reſemblance to the glands, in its form and uſes; and then goes on to obſerve, "that diſcharges, by ſecre-"tion from the head, take place naturally, according "to ſome one of theſe three ways.—By the ears, by "the eyes, or by the noſtrils. There are others by "the palate into the throat and ſtomach; others by "the veins into the ſpinal marrow, and the blood.— "Seven in all.—Theſe diſcharges, while they con-"tinue, purge the head, and when they are ſup-"preſſed, diſeaſe is the conſequence. The ſame "happens in other parts of the body; but if they "make their way internally, and not externally, and "meet with much internal obſtruction, the acrid "parts of the rheum, if the brain emits any, re-"mains, and corrodes and exulcerates in the ſucceed-"ing defluxions; and if an abundant and continued "flow of humours comes on, the diſcharge cannot

blindneſs *. They who are rendered infirm, through a wound in the body, if a fever unattended with a rigor ſucceeds, are reſtored; but if no fever enſues, an apoplexy of the right or left ſide is the conſequence ‡. "If apoplectic patients "are attacked with the piles, the ſymp-"tom is favourable, if with chilling and

"terminate, till the whole of the deſcending matter "be exhauſted. For as the humours which flow in "are diſcharged, others are received in their room, "become aſſimilated to the humours they meet with, "and produce diſeaſes; and thus both theſe, if not "attended to, enervate the conſtitution, and bring "on grievous and ſtubborn maladies.

"In this ſtate" the defluxions deſcribed, "are "attended with much danger, and become preter-"naturally and unuſually morbid. The brain itſelf "alſo ſuffers, in the manner above recited, and this "affection is denominated an apoplexy." When great defluxions did not produce *acrid* rheum, the conſequence he deſcribes ſeems to be idiotiſm; after which, he ſpeaks of the ophthalmy, and of defluxions, about the ears, and in the inteſtines.

* Aphor. 55 & 56. lib. 6.

‡ An inſtance of the apoplexy and palſy having at this time one general name.

"torpor,

" torpor, it is a bad ſign. In apoplectic " complaints, if ſweating enſues, upon " difficult reſpiration, it is fatal. Again, " if in the ſame maladies a fever takes " place, the diſorder terminates, or when " they come on ſuddenly, and after a " length of time, terminate in a conti- " nual fever, they are mortal *. Perſons " afflicted with pains in the head, noiſe " in the ears, dizzineſs, ſlowneſs of ſpeech, " and a torpor in the hands, unaccom- " panied with fever, may be expected to " be attacked, either with the apoplexy, " epilepſy, or idiotiſm."

" It is impoſſible to cure a vehement " apoplexy; nor is a weak one very eaſily " cured" ‖. Hence we ſee, in the days of this writer, the nervous apoplexy, the apoplexy from defluxions, and the palſy, were all deſcribed under one general name. The only diſtinction made is in their de-

* Coact. pranot. 3s. 52 & ſeq. & 2s. 6.

‖ Aphor. 42. lib. 2s.

gree

gree of violence; and hence the confuſion, we ſhall meet with in practice, aroſe.

Galen, and the ſubſequent Greek writers.

GALEN ſays, "an apoplexy is a palſy "of the whole body," and, being fond of theoriſing, imagined it to ariſe from a ſudden colluvies of pituita, or a thick cold phlegm, filling the ventricles of the brain, except betwixt the age of forty and ſixty, and then a melancholic humor is apt to take place. It is an acute diſeaſe, without a fever, "though he ſpeaks of a hot, "or a warm apoplexy," in which he ſays, "if a fever comes on, it is not eaſily "relieved."

"It is more common to old men than "any other diſorder; becauſe in them the "brain is filled with a pituitous humor. "All the muſcles, except thoſe which "lift up the thorax, become deſtitute of "motion; the whole body is deprived of "both ſenſe and motion, reſpiration only "remaining, and when this is ſtopped,

"it

it is a moſt acute apoplexy*." Which doctrine was copied by Ætius † Paulus, ‡ and all the ſubſequent Greek writers, implicitly, without, as far as I can find, one fact to ſupport the theory advanced.

MARINELLUS, in his learned commentary on Hippocrates, from the paſſage we have quoted above, and a paſſage in Galen, reſpecting chronic apoplexies, divides this diſeaſe into two kinds, the acute, of a hot nature, and called ſtrong, the other weak, chronic, and cold. The acute, or ſtrong, was ſaid to ariſe from an acrid, and the chronic from a thick pituitous, attrabiliary defluxion; in which diſtinctions the apoplexy and palſy are deſcribed under one general name. Hence we ſee how it came to paſs, that Hippocrates called a local palſy of the leg, and an he-

* Thoſe who wiſh to ſee from whence this reading is made, will ſave themſelves much trouble, if they have recourſe to Lacuna's Epitome Galeni.

† Cap. 27. Serum 2.

‡ Lib. 3. cap. 18.

miplegia

miplegia, an apoplexy, and why Galen affirmed them both to be of the ſame kind.

The opinion, however, of Marinellus was not attended to, for what Ætius and Paulus had copied from Galen, about cold, thick phlegm being the cauſe of every kind of apoplexy, was handed down to about the time of Fernelius *, who denied that the ventricles of the brain are in this diſeaſe either filled or obſtructed with this kind of humour, and gives it as his opinion, *from reaſoning upon the ſubject*, that it is brought on "by the ar-"teries of the brain being compreſſed or "obſtructed.—Whence the heart does not "receive the ſpirits uſually ſent to it, and "ſenſe and motion periſh."

Hoffman. Afterwards, Hoffman adopted the opinion about the ſerous and ſanguineous (hæmorrhagia cerebri) apoplexy, in which he ſuppoſes "by the compreſſion, thus "made upon the brain, the ſecretion

* De abditis rerum cauſis, lib. 2. p. 86.

"and

" and diſtribution of that ſubtle fluid " through the nerves, eſſential to ſenſe " and motion, is not only impeded, but " the circulation of the blood through " the brain is diſturbed, and interrupted. " Hence both animal and vital actions " languiſh, and in a ſhort time are to- " tally extinguiſhed."

Theſe opinions were copied and adopted by the Baron Van Swieten *, and it is worth obſerving, that notwithſtanding he very properly defines an apoplexy, and tells us that perſons ſeized with it, " fall " down at once, as if ſtruck by a ſudden " blow, in the ſame manner as a bullock " knocked down with a butcher's ax," yet like moſt of thoſe who have gone before him †, he defines one diſeaſe, and immediately treats of another. And theſe principles, in one form or other, have continued to this day.

Van Swieten.

* Com. Sect. 107.

† Aurelianus, Etmuller, and perhaps a few others, are exceptions.

There

Cullen. There is a late exception, indeed, in Cullen *, who, after adopting the doctrine of compreſſion, thinks it probable, "*that* "*this diſorder does not always depend upon* "*that cauſe, but ſometimes upon a certain* "*ſtate of immobility of the nervous power,* "*produced by certain circumſtances in the* "*nervous ſyſtem itſelf, which ſeems to be* "*communicated from one part of the body to* "*another,*" and whether this does not always happen in the nervous apoplexy, will hereafter appear.

* Firſt lines 1051. vol. 3. p. 162.

PART

PART I. SECTION II.

On the vehement, or first Species of nervous Apoplexy.

HAVING pointed out, that various and very different diſorders have been called apoplexies, even by Hippocrates himſelf; we now mean an attempt to diſtinguiſh them from each other, and to ſhew the methods of cure, which we have found moſt ſucceſsful, under different circumſtances.

By apoplexy in the preſent inſtance, we wiſh to be underſtood to ſpeak of that diſorder, in which the patient falls down ſuddenly, as if he were thunder-ſtruck, into a profound ſleep, with ſnoring and ſonorous reſpiration. He is deſtitute of motion, except in the thorax and heart. —Is inſenſible, and has a hard, full, diſordered pulſe, accompanied ſoon with a relaxed, or dilated countenance, and a

fluſhing in the face. There are other ſymptoms which often attend, that are common to other diſorders; but theſe are the leading features of the complaint we mean firſt to deſcribe.

The ſnoring and ſonorous reſpiration, are pathognomonic ſymptoms of the diſeaſe, and profound ſleep, inſenſibility, &c. without them, do not characterize the malady. Cullen ſays, "the ſterto-"rous breathing is not always preſent, even "in the moſt complete form, or the moſt "violent degree of this diſeaſe *;" and accordingly omits it in his definition. But to have made this obſervation uſeful, the kind of apoplexy, he had in view, ſhould have been ſpecified; for though it is true there are violent apoplexies, in which theſe ſymptoms do not appear, yet we muſt remember, that Hippocrates, in the 51 Aphoriſm of his ſixth book, ſeems to notice the ſtertorous breathing as a

* Firſt lines.

leading

leading ſymptom *: and Galen, in his ſecond comment, Aphoriſm 42. conſiders violent reſpiration as a ſymptom denoting the greateſt and moſt acute apoplexy; and all the writers, I have ſeen, except Cullen, coincide with them in opinion. Wherefore we apprehend Cullen does not allude to that diſeaſe, of which we are treating, but to ſome other, we ſhall hereafter have occaſion to mention.

The apoplexy, then, before us, we conſider to be a diſeaſe *ſui generis*, ariſing from an internal cauſe, becauſe it has peculiar ſymptoms: it does not always originate in the head, as has been imagined, but alſo in the viſcera of the thorax or abdomen, or both together. It apparently happens to thoſe poſſeſſing a morbid irritability, occaſioned by ſome kind of affection in the brain itſelf, or ſome other part of the brainular ſyſtem †,

Owing to a diſordered ſtate of the nerves.

* See alſo lib. 2. de morbis.

† It may be remembered, that in the firſt volume of our Medical Surgery, p. 180, we deſcribed a diſeaſe in the diffuſed brain, which brought on the

Occaſioning an apoplectic diatheſis.

which conſtitutes what we call, an apoplectic diatheſis; and we have for that reaſon named it the firſt ſpecies of nervous apoplexy, becauſe we have diſcovered that plethora, extravaſations of blood, or red ſerum, or the polypi, we ſometimes find in diſſecting the brain, are not the cauſe of this, but the cauſe or conſequence of other maladies *, we ſhall hereafter ſpeak of, which require a different treatment.

This I was led to conceive from ſeeing, that turgid veins may happen in the brain, and that extravaſated blood, or ſerum, in large quantities, may be lodged upon this ſubſtance, or betwixt its foldings, without producing the ſymptoms we have deſcribed.

CASE I.

The butler, in the abſence of a family, having waſted the greateſt part of the

tetanos. Perhaps ſomething ſimilar may bring on an apoplectic diatheſis.

* See Coma.

wine

wine under his care, determined to evade the conſequences of an inquiry, which he had reaſon to expect would ſoon happen, by putting a period to his exiſtence. For this purpoſe he loaded a piſtol, but being fearful of pain, tied a thick wet cloth many doubles round his head, through which the ball did not paſs, tho' the piſtol was cloſe applied when fired. That ſide of the head however was much bruiſed, the ſcull ſlightly fractured, and though he had the aſſiſtance of a ſurgeon before I ſaw him, he died on the third day.

The day following Mr. Spender and myſelf opened the head, and were ſurprized on finding every part of the ſcull full of coagulated blood. Every interſtice, in the ſubſtance of the brain and cerebellum, was filled with it; yet though he dropped down at firſt, and was ſtupid for awhile, he recovered his ſenſes, and remained without any apoplectic ſymptoms. He talked very ſenſibly when ſpoken to, till within a few hours of his

death, which event I imagine was occaſioned by the concuſſion and derangement the brain had ſuffered; for though it has been uſual in concuſſions, to aſcribe the death of the patient to the blood we meet with upon opening the ſcull, yet it is eaſy to prove, that the extravaſation is not the cauſe, but the conſequence of the cauſe of death.

A man received a violent blow upon the head with a large hedge ſtake, and inſtantly complained of violent pain all over it, ſaid he ſhould die if he was not immediately bled, and he did die in a very little time, before any aſſiſtance could be procured. Upon opening the ſcull at the coroner's inqueſt, we found a cake of arterial blood betwixt the dura and pia mater, about the thickneſs and ſize of half a crown; but as the pain was inſtantaneous, before any blood could be diſcharged from the ruptured veſſel, and the quantity, in the ſituation we found it, inſufficient to deſtroy life in ſo ſhort a time,

time, I aſcribed his death not to the coagula, but to the concuſſion the brain underwent from the violence of the blow.

When an ox is knocked down by a butcher, he inſtantly becomes ſenſeleſs from the concuſſion before any extravaſated blood can happen, and death is independent of the rupture of the veſſels we meet with upon opening the head. Is it not alſo often the conſequence of concuſſions of the brain, where upon diſſection extravaſation of any kind is not to be found?

Theſe obſervations put me upon a new train of thinking about apoplexies. I was led to look back upon the caſes which had paſſed my notice connected with the ſubject; and the reſult of my inquiry was, that erroneous opinions had been drawn from appearance, in the diſſection of dead bodies.

CASE II.

A keeper in the foreſt of Needwood was ſet upon by ſome deer-ſtealers, who beat him violently on the head with their weapons; he inſtantly became inſenſible, an hemiplegia ſeized his right ſide, he was delirious, and ſlept, but without either ſnoring or ſonorous reſpiration.

Several days paſſed before I ſaw him, and as no chirurgical treatment had been purſued, I laid the ſcull bare, but neither fracture or fiſſure could be found. Suſpecting the contents of the cranium to be injured, a trephine was applied on each ſide the ſagittal ſuture; the dura mater was found black from blood ſtagnating in its veſſels and fibres, and diſtended much by a fluid underneath. Upon dividing this membrane with a lancet, a conſiderable quantity both of coagulated blood, and bloody ſerum were diſcharged; nor did this kind of evacuation ceaſe of

a week

a week or ten days, but at laſt gradually decreaſing, the patient got perfectly well, and was able to ſhoot his deer as uſual; which I think would not have happened, if preſſure from extravaſated blood had been capable of producing an apoplexy.

In the preſent inſtance, I look upon the inſenſibility and hemiplegia to be owing to concuſſion, becauſe they immediately took place, and the diſcharge from the opening probably unloaded the veſſels, &c. and prevented putrefaction in the membranes and brain. Indeed I have opened the heads of ſeveral who died of fractured ſculls, in which the veins were turgid, and more or leſs coagulated blood was found; and yet I do not remember to have ſeen one of them die with the apoplectic ſymptoms deſcribed.

Turgid veins and coagulated blood

The ſame may be ſaid of extravaſated ſerum in the brain, or betwixt the dura and pia mater, for have not we in concuſſions of the brain many inſtances of this ſort without an apoplectic ſymptom

Extravaſated ſerum.

appearing? In the hydrocephalus I believe we never meet with apoplectic ſymptoms *, notwithſtanding there are ſometimes great effuſions, or collections of lymph, and ſometimes large cyſts full of water in the ventricles of the brain.

In abſceſſes of the brain, which are ſometimes long in forming, I have ſeen the patient leſs diſturbed than could be imagined, though an enormous quantity of matter was diſcharged, upon opening the ſcull after death; nor at the cloſing of the ſcene is the patient ſubject to profound ſleep, accompanied with a relaxed countenance, ſnoring, and ſonorous reſpiration †.

Even in fractures of the ſcull, where we are certain that compreſſion takes place

* We read of the apoplexia hydrocephaleia, but Whytt, p. 21, much more properly called it a *coma*, ariſing from a dropſy in the brain, whether acute or chronic. See Coma, ſect. 6th.

† This is confirmed by Sir John Pringle, in his diſſections of thoſe who died of malignant fevers. Ob. part 3. chap. 6. ſect. 4. p. 257.

from

from the bone being depreſſed, we do not meet with thoſe ſymptoms; vomiting, coma, grinding of the teeth, an hemiplegia, and deliriouſneſs, being the principal ſigns which accompany the injury done to the brain.

Indeed, there are abundance of inſtances which ſhew, that extravaſated blood and ſerum do not cauſe apoplexies. Mr. Pott's caſes, in his obſervations on injuries of the head, afford ample proofs; and in particular I have turned over Morgagni's diſſections, where it is eaſy to diſcover, that the cauſe of death was previous to the extravaſations he met with. In one inſtance he confeſſes, "that the cerebrum "and cerebellum were extremely ſoft, "and," he ſays, "the brain never ſeems "to be more corroded, than when large "and preternatural cavities are found "within its ſubſtance in this diſeaſe, full "of blood, with parieties ſo horribly "lacerated and bloody, there is nothing "they more effectually reſemble than deep,

" deep, corroded ulcers of the external " parts *." Theſe he conjectures aroſe from Anueriſms, which ſuddenly broke, and killed the patient; but ſurely, were they of a ſize ſufficient for this purpoſe, would they not have occaſioned death before that period? Abſceſſes and ulcers of the brain, accompanied with extravaſated blood, may be formed a conſiderable time before they deſtroy the patient, and theſe, no doubt, were not ſudden affections, but a work of time †.

In the ſixth volume of the London Medical Inquiries, I think we have deciſive evidence of red ſerum, &c. when extravaſated, not being the cauſe of the diſeaſe in queſtion; for in a young gentleman, whoſe head was opened, after his death, by Dr. Smith, Dr. Martin Wall, and Mr. Longford, " the membranes, " covering the brain were found tenſe " and diſcoloured, accompanied with a " large exudation of ſerum, tinged with

* Vol. 1. lib. 1. † See Coma.

" blood,

" blood. Upon turning back the dura " mater, the bloody ſerum flowed more " plentifully, the red ſuffuſion was diſco- " vered all over the ſurface of the brain " itſelf, and upon barely cutting into the " ventricles, there poured out a very un- " uſual quantity of lymph :" and yet this diſeaſe, which had continued a long time, ended without any apoplectic ſymptoms; which fully confutes the opinion of Mead, who ſuppoſes a watery red humor tranſuding from the blood, to be the cauſe of this complaint, and at the ſame time brings to mind an obſervation made by Etmuller *, who ſays, " the ancients de- " rived the cauſe of an apoplexy from a " collection of ſerum in the ventricles of " the brain, but it appears from anato- " mical diſſections, that the brain of apo- " plectic perſons is not always moleſted " with any ſuch matter. Whereas col- " lections of ſerum are found in the heads " of thoſe, who were never ſeized with

* Lib. 2. ſect. 3d, cap. 3. art. 1.

" an

" an apoplexy in ther lives." Morgagni, in his fifth letter, treats of apoplexies, which neither arife from blood or ferum. And laftly, my friend, Mr. Chefshire, of Hinckley, a man to be depended upon, and whofe fkill in anatomy enabled him to detect any morbid appearances, tells me he diffected many who died of apoplexies in the Middlefex hofpital, without being able to difcover any extravafations either of blood or ferum in the ventricles of the brain, or in any part of the fcull; from all which it is evident, fome other caufe muft exift, that occafions the nervous or true apoplexy, after which we fhall prefently inquire.

Serous and fanguineous Apoplexy conſidered

In this light, of what ufe is the diftinction of ferous and fanguineous apoplexies, which has been kept alive by fyftematical writers, in oppofition to common fenfe? For if we were even to allow that blood, or ferum, are feparately capable of bringing on an apoplexy, it does not follow that the one or the other of them is always

the

the cauſe of this diſeaſe; and accordingly Morgagni * is obliged to acknowledge, that this diviſion is imperfect, becauſe apoplexies ariſe from a variety of cauſes: and it was for this reaſon, that Bergerius no way approved of it, that Malphighius held it in contempt †. And that Dr. Heberden ſays it is a difference, not eaſy to be ſeen, and hardly ever looked for in practice ‡.

Dr. Mead, however, ſays Hippocrates, gave the name of ſtrong to the ſanguineous, and light or weak to the ſerous; but there is no application of this ſort in the aphoriſm recited §; nor has he aſſiſted practice in copying from Baglivi, "that the ſanguineous requires plentiful "and frequent bleeding, but that purg- Mead's opinion of this matter.

* De Apoplexia Epiſ. 5.

† See Hoffman, ſect. 6, de Apoplexia.

‡ Med. Tranſ. vol. 1, p. 472—Sennertus kept up this diſtinction improperly, by claſſing injuries of the head with Apoplexies. De Apoplexia, cap. 33, lib. 1, part 2.

§ Aphor. 42. ſect. 2.

"ing

" ing is more requiſite in the pituitous ;" for though this ſquares theory and practice well together, yet he omitted to deſcribe the ſymptoms which diſtinguiſh one kind from the other, and thus left his directions unfiniſhed and uſeleſs ; for Hoffman's theory, on this ſubject, does not help us to any uſeful information *. Cul-

Cullen. LEN † more properly obſerves, that it is a diſtinction which cannot be very uſefully applied, as both kinds may often depend on the ſame cauſe, that is, a venous plethora, and therefore require very nearly the ſame method of cure ; and ſuch diverſity of opinions will ever happen, when we proceed upon uncertain or imaginary principles, for does it not appear, that the true apoplexy is not produced by either of theſe cauſes, or both together, and that the opinion we are now examining, has all along, with few exceptions only, been eſpouſed without being properly inquired into ?

* De Apoplexia. † Firſt lines.

I think it is generally agreed that wounds of the cerebellum ſooner or later occaſion death; it has happened ſo in every inſtance I have ſeen, and it is well known, the humane fowler, having wounded and mutilated his bird, inſtantly brings on an apoplexy, which puts it out of pain and miſery, by piercing the cerebellum with a feather: nor does an abſceſs, while forming in the cerebellum *, without producing an apoplexy contradict this obſervation; for we know the nerves may be gradually ſtretched, without bringing on any ſymptom appertaining to convulſions, whereas when they are pricked, or otherwiſe irritated, nervous agitation more or leſs follows; whence there is ſome reaſon to conclude, that the nervous apoplexy has it's ſeat principally in the medullary, and comatoſe affections in the cineritious part of the brain; but more of this as we proceed; let us now examine whether the

Seat of apoplexy

* Ed. Med. Eſſays. Vol. 6th, p. 106.

nervous

nervous apoplexy does not depend upon ſome other cauſe, than compreſſion or extravaſation within the ſcull, uſually aſſigned for apoplexies in general.

Vertigo. The vertigo, which often precedes the apoplexy, ſeems to be the leaſt or loweſt ſymptom of this diſeaſe, and it it well known, is often brought on by the nerves of the ſtomach being irritated, or otherwiſe offended, in thoſe habits moſt probably, where not the nerves of the ſtomach alone, but the whole brainular ſyſtem has acquired a preternatural degree of irritability; for nervous affections are ſeldom, if ever, local *; in particular, the nerves of the abdominal viſcera have a wonderful power over the whole body; and we are inclined to think this cauſe of the vertigo to be in general the true one ‡, becauſe by removal of offending matter from the ſtomach, and by giving

* See Differt. Brain and Nerves. loc. cit.

‡ A vertigo may alſo ariſe from a diſeaſe in the head. See Coma.

remedies

remedies which allay the ſpecies of irritability exiſting, we often cure the patient.

To account for this kind of apoplexy therefore, it is only neceſſary to ſuppoſe the nerves of the ſtomach to be more violently affected under an apoplectic diatheſis, and that this affection is communicated as quick as lightning along the medullary part of the nerve to the ſame ſubſtance in the head, and hence an apoplexy, or ſudden ſtroke is produced. In proof that ſuch a ſtate of the nerves ſometimes exiſts, we may call to mind the ſtate of thoſe in a tetanos *, or the apoplectic or ſudden death of children in dentition, owing to the nerves of the gums being in a ſtate of tenſion (as we learn by the effects of dividing them) whence the whole body becomes ſo very irritable, that the clapping to of a door † haſtily, for inſtance, or I apprehend ſome

Nervous apoplexy.

* See Med. Surg. vol. i. p. 108. Caſe 5th.

† I have known this happen.

offence in the ſtomach has put an immediate period to life. Accordingly, it is very well known, that the ſtomach being offended by a full meal of improper food, by irritating, in particular habits, brings on too often immediate death, in the manner we have elſewhere deſcribed, in ſpeaking of the ſympathy of the nerves *. Nor does Dr. Fothergill's † account of the cauſe of apoplexy interfere with this ſuggeſtion; becauſe we apprehend it belongs to another ſpecies of this diſeaſe ‖.

Indeed, notwithſtanding an extreme degree of irritability in the nerves, of any part of the body, may be the cauſe of an apoplexy, as abundance of inſtances evince; yet there is reaſon to believe, that the common nervous apoplexy moſtly originates in the ſtomach, or ſome part of the abdominal viſcera; for people ſub-

* Med. Surg. vol. 1. p. 190, 191.

† Med. Ob. & Inq. vol. 6. p. 84.

‖ See Sect. 5. of this part.

ject

ject to apoplexies have commonly acquired this diatheſis by inactivity and free living both in eating and drinking; the nerves of the primæ viæ are of courſe firſt affected, and ſometimes become ſo ſuſceptible of impreſſion, as to bring on inſtant death upon being offended. It is generally believed, that ſhort-necked people are more ſubject to this complaint than others, owing to an unuſual quantity of blood paſſing through the head *. But has theory or facts ſupported this opinion? For though it does happen to perſons of this ſtructure of body, in common with others †; yet may it not be obſerved, that by far the greater number of ſhort-necked people paſs through life without one apoplectic ſymptom happening to them, and that thoſe with long necks are equally liable to this complaint.

* To judge of this, read Monro of the circulation of the blood within the head. Structure, &c. Nervous Syſtem, chap. 1. p. 2.

† See Coma, forward.

Apoplectic diatheſis cauſe of the fit.

It is not ſtructure then, but more probably an apoplectic diatheſis, which occaſions this diſeaſe, in every inſtance; nor is this always brought on by intemperance, but by a variety of other cauſes. For inſtance, the nerves ſometimes ſeemingly acquire this ſtate from the atmoſpere; for apoplexies, it is well known, are more common in ſome ſeaſons than in others. Baglivi informs us, that they were almoſt epidemical in the years 1694, and 1695 at Rome, and all over Italy, owing, as he very properly apprehended, to an unuſual conſtitution of the weather *. Nor do I think we can be much miſtaken in our account of the nervous apoplexy, becauſe the pulſe points out a diſeaſed ſtate of the nerves. I ſuſpect they are exceſſively irritable, of courſe the heart, while capable, contracts with vehement force, and the circulation is carried on by a convulſive irregularity. I apprehend the ſnoring and ſonorous re-

* Appendix to Practical Phyſic.

ſpiration,

ſpiration, are owing to the ſame cauſe; and whoever reflects, that in women with child, who unfortunately happen to be ſeized with this complaint, the fœtus is not uncommonly expelled by convulſive violence, will have very little doubt about the ſtate of the nerves, eſpecially when they hereafter ſee, that bliſters, and whatever irritates the nervous ſyſtem, accelerates the death of the patient. Should it be ſtill aſked whether this diſorder may not be brought on by a ſpaſm in the origin of the nerves, we muſt call to mind the very proper anſwer of Home*, "Haud "quaquam; quia muſculos, non nervos, "ſpaſmus adoritur."

Hard to determine the kind of derangement that happens.

After all, it is hard to determine what kind of derangement happens to the brainular ſyſtem in this inſtance; the ſymptoms deſcribed differ from any we meet with in other affections, I ever remember to have ſeen; the living principle is injured; there ſeems to be a violent

* Princip. Med. p. 208.

ſtruggle for life, but death has invariably happened in every caſe I have known, or heard of, in the ſpace of fifty years. Neither evacuations, nor fœtid remedies, to whatever extent carried, afford any relief; and we may remember, that Hippocrates, in ſumming up his experience on this occaſion, aſſerts, that it is impoſſible to cure a vehement apoplexy. Nor do the moderns ſeem to contradict this opinion.

Whether the uſe of opium, by leſſening irritability, &c. will afford relief, remains yet to be determined, and when the evidence we ſhall produce is heard, the faculty, having no other remedy, will judge whether it ought not to be tried; tho' I confeſs I am fearful it is from the firſt a mortal affection. It ſeems to differ very little from the apoplexy occaſioned by an extinction of the vital principle. In the one, life inſtantly vaniſhes; in the other, a ſmall portion of it remains for a little time. I have only ſeen two caſes of the vehement apoplexy, ſince I knew the uſe

Nervous apoplexy, and apoplexy from an immediate extinction of the vital principle, compared.

of

of opium in apoplectic affections; in both it was too late to expect any thing from medicine, and I did not give it, but I have truſted to it more than once, with ſucceſs, in a very violent epilepſy, where the patient lay convulſed, and perfectly inſenſible. This diſorder has been ſaid to have an affinity with the apoplexy, and perhaps the only difference may be in the degree of affection the brainular ſyſtem ſuſtains *.

It is happy, however, that in the prophylactic treatment, the phyſician may be ſometimes ſerviceable, by adviſing free livers to a cooling and temperate regimen, by keeping the primæ viæ in order, by proper evacuations, and by allaying that kind of irritability, which, from the temperament of the body, we have reaſon to ſuſpect may prevail.

* See Poſtſcript.

PART I. SECTION III.

On the milder, or ſecond Species of nervous Apoplexy.

IN contradiſtinction to the apoplexy, of which we have been treating, Hippocrates, in the ſame aphoriſm, ſpeaks of a milder kind of this diſeaſe, which he ſays "is not very eaſily cured." This diſtinction has been copied by moſt writers, but without examining it thoroughly. I have ſeveral times ſeen it, and known it cured; and obſerve, it is that kind which ſo often leaves an hemiphlegia behind. It has the ſame ſymptoms as the apoplexy deſcribed, but in a leſs degree, and the patient is not void of ſenſation, owing, probably, to the brain and nerves being leſs violently affected. It is, however, a ſpecies of the ſame complaint, becauſe whatever increaſes the irritability of the habit, converts it into, what we call, a true ner-

vous

vous apoplexy, with all it's apoplectic ſymptoms.

CASE III.

A gentleman about forty years of age, whoſe manner of living, and habit of body, would lead to a ſuſpicion that an apoplexy might attack him, was ſeized ſoon after a full meal with ſickneſs and giddineſs; he fell down, and a hard ſleep followed, but when ſtirred to awaken him, he muttered, and ſometimes moved his limbs a little, though it was evident he was delirious, but his face was neither dilated or relaxed, as is uſual in thoſe ſeized with the vehement nervous apoplexy.

His apothecary, ſeeing him inclined to vomit, gave him an emetic, which operated well, but without mitigating the ſymptoms; for I found him, ſome hours afterwards, nearly in the ſituation deſcribed. His pulſe was about ninety, and

full,

full, but without that irregularity ſo manifeſt in a vehement apoplexy. Nevertheleſs, I ordered that ten ounces of blood ſhould be taken away, and that five grains of James's powder ſhould be given every five hours, till it opened his bowels; and by the time he had taken two or three doſes, he had ſeveral ſtools, and was apparently better. Next day I ordered an opening mixture, with directions that it ſhould be given in ſuch a manner, as to procure three or four ſtools every day, for three or four days together; by which he became better, and on the third day was able to walk down ſtairs, and to ride four miles home in a poſt-chaiſe. The day following he read the newſpapers, his pulſe being reduced to ſeventy, but as the ſymptoms which threatened danger had not intirely left him, a ſleepineſs remaining, *when his mind was not employed*, a conſultation was deſired, and accordingly another phyſician was called in. Before this I had ſome time been diſſatisfied

fied with the general opinion about this complaint, and had withheld the uſe of bliſters, fearing the effects of irritation; but the gentleman called in, thinking the nature and cure of apoplexies were well ſettled, the common routine of practice, cupping, bliſtering, &c. was ordered to be purſued.

When his ſurgeon came in the afternoon, the patient deſired him "to go up "ſtairs with him, and get the cupping "buſineſs over," but it fatigued him, and when the bliſter began to operate, he became convulſed and delirious. A ſecond bliſter on the head was applied in my abſence, and when I ſaw him ſoon after, his countenance was relaxed and dilated, and death took poſſeſſion in a few hours. Nor has Hoffman omitted to inform us of ſome inſtances, where irritating purges had a ſimilar effect *.

Bliſters their effects in this diſeaſe.

* De Hemor : Cerebri.

There

There is no comment neceſſary, on the effects of bliſtering in this caſe †; nor can there be any doubt of a preternatural degree of irritability in the habit; of the irritation beginning in the ſtomach, and producing the ſymptoms in the manner deſcribed, in the firſt ſpecies of nervous apoplexy; but in a leſs degree: for we ſee, not only in this, but in all other ſpecies of this claſs, the diſorder is not attended with ſo profound a ſleep, as in the firſt ſpecies; the patient is delirious, it is true, but though he ſleeps harder than common, and ſometimes ſnores a little, yet he has not any apoplectic ſonorous reſpiration; and both his ſleeping and ſnoring, have more the appearance of being natural, than in the firſt ſpecies of this diſeaſe.

The pulſe, though perhaps full, has

† See Baglivi de uſu & abuſu veſicant: Alſo our Treatiſe on Childbed Fevers, p. 110. I have ſince been informed of an inſtance with ſimilar ſymptoms, which ended in death.

not

not the agitation in it we obſerve in the more violent apoplexy ; nor is the countenance dilated or relaxed * ; neither is he quite deſtitute of motion in his limbs, when diſturbed. He is ſometimes ſick, and attempts to vomit ; and vomiting gives more or leſs relief.

* Whoever reflects that this ſymptom is the forerunner of death in a variety of inſtances, will ſee it is the cleareſt evidence of nervous energy being deſtroyed.

PART

PART I. SECTION IV.

On the cure of the milder, or ſecond ſpecies of nervous apoplexy.

IT may be obſerved that a loſs of blood, to whatever extent carried *, affords not any relief in the vehement apoplexy; and yet much dependence has always been had upon bleeding indiſcriminately, in every diſeaſe which has been called an apoplexy. Nor was the propriety of ſuch practice doubted, till Heberden † ſuſpected that miſchief may be done by it in this diſeaſe. Afterwards, Fothergill ‡ from his mature judgement, was of opinion that it often occaſioned the deſtruction of

* I have ſeen two women who were ſeized with a nervous apoplexy, in an advanced ſtate of pregnancy. They were bled, miſcarried, flooded and died, without the leaſt abatement of the ſymptoms.

† Med. Tranſ. vol. i. p. 471.

‡ Lond. Ob. & Inq. vol. vi. p. 680.

the

the patient; but not ſpecifying the apoplexy to which his ſtrictures were applicable, even he himſelf could not ſpeak with preciſion on the ſubject; and his obſervations have not therefore, as far as I can diſcover, yet claimed that regard they deſerve.

The arrangement we have made, it is hoped, will ſupply this defect, for by attending to the diſtinction betwixt the nervous apoplexy, and the coma or apoplexy, as it has been called, ariſing from plethora, it will in general be obvious when to bleed and when to let it alone. It is the nervous apoplexy to which his obſervations belong, where the brain and nerves have loſt their power, and the vital principle is ſo much injured, that there is more or leſs an approach towards death. Conſequently whatever leſſens theſe powers muſt haſten this kind of termination. There is not any thing, it is well known, that weakens the vital powers more than bleeding when conſiderable;

nor

nor can I ſee in what manner the loſs of blood can afford relief where compreſſion, diſtention, or inflammation is not the cauſe of the diſeaſe. Wherefore, in this point of view, what Fothergill has ſaid about bleeding in apoplexies, appears to me to be well founded, and to be deſerving of the moſt ſerious attention.

Should inflammatory ſymptoms however happen to accompany this diſeaſe, and indicate the neceſſity of a loſs of blood, it will be better to make this evacuation at different times, becauſe by this means there will be leſs hazard of taking more blood away than ought to be loſt. Fothergill very properly obſerves, that the pulſe in ſuch a ſituation is often an inſufficient guide, and I wiſh it to be conſidered whether the agitation, we meet with in it, does not ſhew a diſeaſed ſtate of the nerves, which forbids this operation.

Vomits. More dependence is to be had upon vomiting and purging, and ſeemingly the effects of vomits are not to be dreaded in this

this inſtance where there is no plethora. I have ordered them myſelf, and have repeatedly ſeen them ordered by others, with ſafety and advantage. After this firſt ſtep towards clearing the primæ viæ, purges ſhould follow. I have ſeen the beſt effects from opening the bowels with ſmall doſes of ſaline purges three or four times a day for ſeveral days together, but along with theſe, opium ſhould be given, for in the ſecond part, we ſhall ſhew when way is made for this remedy, there is reaſon to expect more from it than all the reſt put together.

Purges.

Opium.

PART I. SECTION V.

On apoplexy from an immediate extinction of the vital principle.

THERE is another well-known ſpecies of this diſeaſe, owing to the vital principle inſtantaneouſly leaving the body. Willis ſays *, "the animal ſpirits "fall down even as the light vaniſhes, "when the flame is put out;" or we may compare it to the blaſting of trees, where though the plant remains perfect in all it's parts, the living principle is gone, and it periſhes; though I think we receive the greateſt light from the dropping of a feather, when the electrical aura, which occaſions it's being erect, is diſcharged from the conductor; nor do I apprehend we ſhall be able to explain this matter further, till we know the manner in which the vital

* On the apoplexy.

principle

principle and the body are united, and act upon each other. We know that thoſe things which deſtroy the power of the nerves, ſuch as laurel water, mephitic air, &c. occaſion this cataſtrophe. Great agitation of ſpirits has ſometimes ſuch influence upon the nervous ſyſtem, as inſtantly to put a final period to it's office; for

——" He, whom anger ſtings, drops, if he dies,
" At once, and ruſhes apoplectic down * ;"

and ſometimes the nerves loſe all their power without any manifeſt cauſe.

CASE IV.

A mantumaker at work was talking chearfully, with ſome friends about her, when her hands dropped down upon her lap, and ſhe was perfectly dead, without the needle being diſplaced betwixt her fingers; which ſingle inſtance, will ſuggeſt

* Armſtrong.

abundance of the ſame kind to the remembrance of the reader.

I have never heard of any ſucceſsful experiment, in reſtoring life in this caſe; nor does it bear analogy to the reſtoration of thoſe, who appear to be drowned, &c. or where the fumes of charcoal, mephitic vapours, &c. have brought on the appearance of death. In the one, though the perſon ceaſes to breathe and move, the nerves retain life for a conſiderable time afterwards, and if the blood can be put into motion during this period, the body reſumes it's natural functions*; whereas in the preſent inſtance, life inſtantly vaniſhes, the nerves become inſenſible to all kind of ſtimuli or irritants, and a diſſolution of the body takes place;

* Men are often brought up out of coalmines apparently dead, from the effects of what the colliers call damp; but they frequently recover, upon coming to the freſh air.

nevertheleſs we are not to give up the patient on the appearance of ſudden death, becauſe a ſyncope, &c. may deceive us, and every attempt ſhould be made to try whether we are deceived or not.

PART I. SECTION VI.

On a carus or coma, arising from an obstruction and distension of the vessels belonging to the brain.

BESIDES those we have spoken of, there is a comatous affection which has all along been called an apoplexy, without distinguishing it from the disorders we have described; though it is a different complaint, has different symptoms, and the very aspect of the patient at once determines to which species of soporific disorders it belongs. And what is of the greatest consequence to be observed, the nervous apoplexy and the coma called apoplexy we are going to describe, do not admit of the same method of cure. Wherefore we have chosen this appellation to avoid the confusion that has hitherto happened; and we doubt not but the intelligent reader will at once disco-

ver,

ver, the neceſſity of making this diſtinction, betwixt two different diſorders, comprehended under the ſame name.

The coma, we mean to treat of, is the apoplexy of Hoffman *, Boerhaave, Cullen, &c. occaſioned by compreſſion of the brain either from a congeſtion of blood, water †, or other humours; nor are the ſymptoms of this diſeaſe and the nervous apoplexy alike. The patient ſleeps profoundly in proportion to the violence of the obſtruction, but without ſnoring or ſonorous reſpiration, nor is there a total abolition of ſenſe and motion as in the vehement apoplexy; the pulſe is often full, but without remarkable hardneſs or convulſive agitation; there is frequently more or leſs a fulneſs of the veſſels about the head, and a ſwelling or fulneſs of the tongue, as deſcribed

* Hæmorrhagia Cerebri.

† We allude to the coma hydrocephalica, which may ſometimes happen in the *acute* hydrocephalus.

by Hoffman, and ſometimes a fever comes on. †

We have juſt obſerved, that it is owing to a congeſtion in the head, or as Boerhaave expreſſes it, (ſpeaking of apoplexy) to humours being accumulated in the veſſels of the head without extravaſation. It is ſeemingly that kind of apoplexy, ſpoken of by Hippocrates, where he treats of the brain being morbid from a flux of humors, and I take it to be deſcribed by Cullen in his Synopſis, where he ſays "Apoplexia, motus voluntarij fere omnes "imminuti, cum ſopore plus minus pro-"fundo." Eſpecially as this writer aſſigns compreſſion for the chief cauſe of all apoplexies, except thoſe that are brought on by the ſedative power of mephitic air, fumes of charcoal, &c. and Boerhaave and his pupil, who went before Cullen, trod upon the ſame ground.

† See a further account of the ſymptoms, caſe viii. ſeq.

It

It is not, therefore, originally a diſeaſe, which affects the brain in the manner deſcribed in ſpeaking of the apoplexy in the former ſections, the one being a nervous affection, and the other ariſing from obſtruction, or diſtention *within* the veſſels (chiefly I believe the veins) belonging to the brain. Nor is there among all the writers of obſervations a clearer account of this matter than in Cheſelden's Anatomy, where he ſays * in a man that died of what he called an apoplexy, "I found all the veſſels of the brain im-" moderately diſtended with blood, and " the ventricles and ſubſtance of the " brain full of lymph; the pia mater very " much thickened, and adhering ſo very " cloſely, that the greateſt part of it was " ſeparated without breaking." All which could not have taken place ſuddenly, and conſequently, the diſeaſe we are deſcribing, inſtead of an apoplexy,

* 7th Ed. p. 225.

muſt

muſt have been the cauſe of the man's death *.

From comparing the ſymptoms which attend this diſeaſe, with thoſe that are brought on by compreſſion, or other injuries of the cineritious part of the brain, I have been led to conclude, that it is an affection of this ſubſtance in its firſt ſtage; but if it is not ſoon checked or removed, the medullary part may alſo become affected, from the connection they have with each other, and put an end to the buſineſs.

We have obſerved that the nervous apoplexy made its attack ſuddenly. This, on

* There are many inſtances of the ſame ſort to be met with in Bonetus Sepulchretum Anat. Morgagni, Lieutard, and other writers of obſervations, which notwithſtanding they frequently made their approach gradually, are called apoplexies. Thoſe who chuſe to continue this appellation to congeſtions of blood, or lymph, &c. in the head, muſt nevertheleſs diſtinguiſh this diſeaſe into the nervous apoplexy, and that, ariſing from compreſſion, owing to a fulneſs of the veſſels belonging to the brain, or they will often be doing miſchief.

the contrary, unleſs from accident, comes on rather gradually, ſhewing ſigns of it's approach, previous to it's laying firm hold of the patient; and it cannot, therefore, properly be called an apoplexy. I take the caſe Dr. Fothergill * has given, of a gentleman ſeized with an apoplexy, as he calls it, from twiſting his neck, when paſſing over the Thames, to be the leaſt or loweſt degree of this complaint, of which we are now treating; becauſe it is removed, by placing the head in a poſition which empties the veſſels that return the blood to the heart. The ſame may be ſaid of what has improperly been called apoplectic ſymptoms, brought on by holding down the head, &c. and if we only ſuppoſe different degrees of obſtruction to the higheſt, we may account for different degrees of affection of this kind. But ſurely this differs very much from the true apoplexy; being an obſtruction in the brain from compreſſion by the blood veſſels, and va-

* Lond. Obſ. and Enquiries, vol. 6.

niſhes

niſhes when the compreſſion is removed. It no way reſembles the morbus attonitus, or ictus fulminis of Celſus; or that diſeaſe of which Cullen had a glimpſe*; and it ſeems to be a miſtaken notion of thoſe, who affix no other meaning to apoplexy than compreſſion. The ſame may be ſaid of hanging, which ſome aſſert occaſions an apoplexy; though others with more reaſon, that it kills by ſuffocation; yet, notwithſtanding it is a ſudden death, by which ever way it deſtroys life, it is very different to that occaſioned by an apoplectic ſtroke; and inſtead of following ſyſtematical writers, who often miſlead us, we ſhall be better underſtood, if we call hanging, drowning, and ſuffocation by their own proper names; remembering at the ſame time, that they all ſeem to terminate life in the ſame manner, and require a ſimilar treatment to prevent a fatal cataſtrophe.

But to return to our ſubject. The apoplexy which Fothergill ſuppoſes to be

* Laſt par. ſect. 1ſt.

produced

produced by a large undigeſted meal, "diſ-
"tending the ſtomach, preſſing upon the
"aorta deſcendens, obſtructing the free
"expanſion of the lungs, and thus crowd-
"ing the arterial ſyſtem of the head, with
"more blood than ought to be there," is exactly the ſame kind of diſeaſe, and is well explained by a caſe in the Baron Van Swieten's Commentaries.

CASE V.

"A gentleman being in company with
"ſome friends, began of a ſudden to look
"wild, preſently after was ſtruck ſpeechleſs,
"and fell down apoplectic. Some of the
"moſt ſkilful phyſicians, who were called
"to him, believed the caſe to be quite
"deſperate, but after a quarter of an
"hour, without any remedy except bleed-
"ing, he vomited, beſides the aliment
"contained in his ſtomach, a great quan-
"tity of phlegm, ſo large, that the human
"ſtomach could ſcarce be thought capable

of

" of holding it. Immediately after the " ſenſes returned, and being refreſhed " with a pleaſant ſleep, was perfectly re- " covered." Nor is it to be wondered at, for if the ſymptoms aroſe from a mechanical cauſe, they would give way to a mechanical remedy.

Hence it is evident, that accumulating juices, diſtending the ſubſtance of the brain, and obſtructing the nervous fluid*, bring on the ſymptoms we ſhall deſcribe; otherwiſe how comes it to paſs that evacuations give relief? When the fluids are confined within their own proper veſſels, it is poſſible to remove the obſtruction, and render the veſſels pervious, and we, by this means, bring about a cure, that would not happen were the fluids out of the courſe of circulation; for I verily believe, whenever extravaſations of blood happen in the head, in any conſiderable quantity†, and are not diſ-

* Med. Surg. vol. i. p. 168.

† Small quantities of blood may perhaps ſometimes be diluted by lymph, and abſorbed.

covered,

covered, and let out by a proper opening, there is inevitably an end of the patient, after ſome time *.

Nor do we, by this way of reaſoning, annul any obſervations we have made reſpecting extravaſations upon the brain; extravaſation and obſtruction being very different things. The one takes off diſtention, and the other occaſions it, as is evident from the caſes recited in the firſt ſection; and we now will add two more to elucidate this point.

Difference betwixt extravaſation, and obſtruction in the head.

CASE VI.

A man betwixt twenty and thirty years of age, being near the limekilns at Ticknal, was knocked down with limeſtone, from a blaſt, and one of the parietal bones was ſo violently broken, that when all

* Making an opening through the ſcull, is very unlikely to avail, when the extravaſation ariſes from a tenderneſs in the brain, and the veſſels belonging to it, owing to an internal cauſe.

the

the looſe pieces were removed, an opening was made into the cranium, more than ſeven inches in circumference *. The quantity of the cineritious part of the brain taken up from the ground at the time of the accident, filled a large pill-box, which the people had in the houſe, and a rough ſtone more than half an ounce weight, which had penetrated that ſubſtance, was removed the firſt dreſſing.

The man being unexpectedly alive, I went next morning with my ſon to ſee him, and had not I known that lacerated wounds of the ſubſtance deſcribed, would under particular circumſtances, heal like wounds in other parts of the body, I ſhould have given up all hope of a recovery, ſo dreadful was the aſpect; but a bare poſſibility of ſucceſs encouraged us to purſue proper treatment.

* This large opening probably ſaved the man's life by preventing confinement of matter, &c.

We

We removed all the lacerated brain which lay in the wound, and upon minute enquiry, discovered a still larger piece of stone forced lower down, which was extracted by a pair of forceps. Much more of the cineritious substance was discharged, in the matter the ulcer afforded at each dressing for some time, but at last the ulcer became clean, and healed, leaving an hemiplegia on the contrary side to that on which the accident happened. Insensibility, stupor and sleepiness immediately followed the accident, but gradually went off in a few days without one true apoplectic symptom happening; whereas if instead of being extravasated and discharged, the fluids had been obstructed and accumulated within the vessels belonging to the brain, a coma *, and death would most probably have been the consequence.

We have before observed †, that the cineritious part of the brain has the ap-

* See coma.

† Med. Surg. vol. 1. p. 170.

pearance of doing the office of a gland, and this inſtance among many others proves that a great part of it may be bruiſed and torn to pieces without deſtroying life, or bringing on thoſe ſymptoms which ſhew themſelves when the medulla cerebri ſuffers any kind of irritation. Whence we are again led to imagine that apoplexies are ſeated in the medullary, and palſies in the cineritious part of the brain.

CASE VII.

Another man had one of the parietal bones broken by a ſtone thrown at him, and pieces of bone, which were beaten inward, wounded both the dura and pia mater; but no remarkable ſymptom immediately followed. The trephine was applied in a few hours after the accident, the depreſſed bone raiſed, and that which was looſe was taken away; after which we had a ſcene troubleſome enough; for the reſiſtance to the pulſation of the arteries

teries being removed, the brain was dilated and puſhed out of the ſcull, and formed what has been called a fungus, in oppoſition to the leaden cullendar, recommended by various writers on this occaſion. This daily grew larger; the practice of paring was purſued for ſome days, but it occaſioned diſturbance without any advantage, for after all, in a week or ten days, it increaſed to the ſize of a large penny loaf, and exhibited a dreadful riſing, and expanſion at each pulſation, and yet the man appeared better in health than it was poſſible to expect.

I plainly ſaw, that paring off part of the dilated brain would do no good, and probably in the end deſtroy the patient; and dreading the conſequence of putrefaction, which in ſuch a caſe I had ſeen fatal, I ordered compound tincture of myrrh, and lime-water, equal parts, to be applied, as an aſtringent antiſeptic. *Thick doſſils* of lint, with as much of this mixture as they would hold, were applied twice a

day, and from this time the increaſe of the tumor ceaſed. In leſs than a week it put on a moſt healthy appearance, and was ſomewhat reduced; and in about a month it had gradually diminiſhed, without any remarkable ſuppuration, or any ſeparation, till it intirely ſunk into the ſcull, and the man is perfectly well at this day; whereas, had the fluids, inſtead of being diſcharged, been confined within their veſſels, I do not doubt but a fatal termination would have happened.

CASE VIII.

The following caſe and thoſe recited are ſufficient to ſhew what kind of diſorder I am treating of, when the humors are accumulated in the veſſels of the head without extravaſation; the attending ſymptoms, and the intentions of cure; which may be extended, if neceſſary, by cupping, and by ſuch other methods, as have been found by experience capable of removing plethora, and making a derivation

Cure.

Cupping.

tion from the head without increaſing the circulation.

A tall and very corpulent gentleman, more than ſixty years of age, who had lived freely in eating, but without any kind of debauchery in drinking, was upon taking cold ſeized with a ſort of indolence, or inactivity of mind; ſleepineſs, dulneſs, and pain in the head followed. Soon after he became delirious; lay almoſt inſenſible, without ſnoring, but in a deep ſleep; and though he ſhewed ſome ſigns of ſenſation upon being ſtirred, he immediately fell again into the ſame ſtate; his pulſe was full and about ninety, but not in that diſordered ſtate, ſo manifeſt in the nervous apoplexy; nor was his countenance relaxed or changed.

He was bled freely, purged for ſeveral ſucceſſive days with ſaline purges; other ſaline deobſtruents were given; a large bliſter was applied to his head, and a recovery was the conſequence. Inſtance.

Our intention will be obvious to thoſe who attend to the manner in which theſe remedies were employed; for much often depends on the way in which they are uſed. Bleeding, it is agreed, takes off diſtenſion by emptying the veſſels, thins the blood, ſomewhat perhaps cools it, and of courſe muſt be uſeful where blood abounds, eſpecially where its motion, from vigor, is too rapid, or ſluggiſh in conſequence of plethora, and ſhould under ſuch circumſtances firſt take place. In the inſtance before us it may be uſed with greater freedom, becauſe the nerves are not in a ſtate to receive injury from a loſs of blood. Nevertheleſs, we ſhould not, in the manner of ſome, depend wholly on this evacuation; for the arteries adapt themſelves to the quantity of blood moving through them *, and a briſker

Bleeding.

* Whoever has a mind to inform himſelf in this matter, ſhould attend a ſlaughter-houſe, and perſuade the perſon who kills ſheep to divide the carotid arteries croſs ways; by which means he will acquire clearer ideas than words can expreſs.

circulation

circulation is ſtill carried on, than is conſiſtent with the welfare of the patient; and were we to purſue veneſection till this was ſubdued, we ſhould probably, as I have ſeen, leave the patient in an incurable ſtate of debility.

Is it not ſufficient if we take off the diſtenſion in the blood veſſels, and then immediately proceed to purging? Nor is there any remedy, which ſo effectually relieves an inflammatory redundancy of blood, or other humors about the head, as Dr. Friend has long ſince obſerved. I agree with thoſe who think it not prudent to apply bliſters in great inflammation, before theſe evacuations are made, as they may at firſt increaſe it, and determine the fate of the patient, before any material diſcharge from the veſſels in the neighbourhood of the part can take place; whereas, when the veſſels are ſomewhat unloaded, bliſters may, and I believe do, aſſiſt by attenuation, &c. in removing the remains of obſtruction and inflamma- Purging.

tion, without danger of thoſe effects we have ſeen from their uſe in the nervous apoplexy; and if what is ſaid is found to be true, concluding with ſome writers, that apoplexy, lethargy, carus, &c. are ſimilar diſeaſes, muſt often be productive of miſchief.

Vomits, when improper.

It cannot be ſuppoſed, that men of ſound judgment will ever think of giving vomits in the coma, we have deſcribed. It is the diſeaſe in which they have been forbid, in treating of the apoplexy, without diſcrimination; and it is impoſſible to uſe them with propriety in comatoſe affections without attending to the diſtinctions we have made. However, it is ſometimes unfortunately out of the power of art, to give relief in this kind of coma, and I apprehend, it is from this diſorder, chiefly, that the modern cauſe, aſſigned for apoplexy, has been drawn. Beſides the common appearance of the veſſels on the outſide of the head being overloaded with blood, the veſſels within the

ſcull

ſcull are equally liable, with thoſe in other parts of the body, to varices, aneuriſms, or other obſtructions of blood or ſerum, ſuch as Morgagni * has deſcribed, and theſe in time may bring on that tenderneſs in the brain he obſerved. Hoffman † brings evidence to prove that this is ſometimes hereditary, which I can readily believe, becauſe the offspring generally inherits the ſtructure of its progenitor. ‡ He thinks alſo that every caſe, in which there is an effuſion of blood upon the brain, is preceded by a weakneſs of the veſſels and membranes belonging to this ſubſtance; otherwiſe, while they preſerve their tone, it is not likely to happen. Indeed I am clearly with him in opinion, and the brain, which no doubt ſhares in the malady, being rendered incapable of performing its office, occaſions death. Conſequently the cauſe of death

Brain and blood veſſels diſeaſed previous to the rupture of the veſſels.

* De Sed. & cauſis morb.

† Hæmor. cerebri, ſect. 1°. cap. vii. ſect.

‡ Med. Surg. vol. 1. p. 424. vol. 2. p. 451.

is

is previous to the extravaſation, and if we wiſh to be ſatisfied in this matter, we muſt look further than the blood we meet with upon opening the ſcull. I know indeed, that a contrary opinion has been entertained by Morgagni, who obſerves, " that thoſe caſes are moſt violent " and the ſooneſt mortal, which have " their origin from *extravaſation* within " the cranium." But we apprehend he was miſtaken about the origin of the complaint, as it only follows from this account, that under ſuch circumſtances, the brain was more than ordinary in a very diſeaſed ſtate, previous to the rupture of the veſſels; and I am perſuaded, in ſuch caſes, from the facts ſtated, that the effect has been miſtaken for the cauſe.

An affection of this kind, inſtead of being ſudden, muſt be a work of ſome time; it muſt be gradual in its progreſs, and it is to be apprehended, that the diſeaſe is often overlooked, till it arrives at its final period, and we then firſt diſ-

cover

cover what was the matter by opening the head of the dead body; whereas, was every fulneſs about the veſſels of the head accompanied with pain and heavineſs to be attended to, we ſhould perhaps ſometimes, by proper evacuations, &c. prevent or keep back ſo fatal a malady.

Gouty metaſtaſis.

On the contrary, a gouty, or any other metaſtaſis to the brain, may *ſuddenly* bring on an apoplexy, a phrenſy, or a coma, according to the manner in which the parts are affected within the ſcull, which the habit of the patient, and the ſeat of the pain, will lead us to diſcover; and, when known, no time ſhould be loſt in our attempts to remove the materia morbi from a part ſo intimately connected with the vital principle. But of this we have already ſpoken in an Eſſay on the Gout, to which we refer the reader *.

* Med. Surg. vol. I. p. 439.

PART

PART II. SECTION I.

INTRODUCTION.

On Paralytic Affections in general.

Hippocrates and Aretæus.

IT has been already obſerved, that in the days of HIPPOCRATES, the ſame general name comprehended both apoplexy and palſy; and after him ARETÆUS * ſays, "that apoplexy, paraplegia, "pareſis, and paralyſis, are all of the "ſame kind, and denote a defect of mo-"tion, or of feeling, or of both; ſome-"times of the mind, and at other times "of the other ſenſes;" nevertheleſs, he makes a diſtinction between apoplexy, and palſy; for he informs us, that an apoplexy is a reſolution of the whole frame, both ſenſe, mind, and motion; whereas the palſy, in general, is only a *remiſſion* of motion and energy †.

* Lib. prim. morb. diuturn. cap. ſeptimum.

† Παραλυσις δε ως επιπαν κινησιος μονον ενεργειης τε παρεσις.

CELSUS

CELSUS * tells us, when a palſy attacked the whole body, the ancients called it an apoplexy; when particular parts, a palſy; but in his time the ſame name was given to both: nor muſt we forget, that in the time of the above latin and ſubſequent greek writers, the word nerve was uſed to ſignify tendon or membrane, &c. and that CELSUS, in treating *de reſolutione nervorum*, means a reſolution of the tendons, ligaments and membranes, and not what we call the nerves; becauſe, in his time, the tendons, &c. only had this appellation; the nerves, as they are unclaſſically called, ariſing from the brain, being then unknown, or not rightly underſtood †. Celſus.

GALEN imagines the apoplexy and palſy both to ariſe from the ſame cauſe, becauſe he thought them both the ſame diſeaſe; but AURELIANUS ‡ ingenuouſly confeſſes, Galen. Aurelianus.

* Lib. 3. cap. 27.

† Med. Surg. vol. 1. p. 151.

‡ Lib. 2. cap. 1.

confeſſes, that it is ſometimes occaſioned by *occult*, and ſometimes by manifeſt antecedent cauſes, ſuch as external injuries, and the like. ÆTIUS * copies from GALEN and ARCHIGENES, and ſays, that in an apoplexy all the nerves (i. e. tendons) loſe their ſenſe and motion together, from a thick cold viſcous humor filling the ventricles of the brain; but in a reſolution (παράλυσις) one ſide only is affected, by a great quantity of thick viſcous humor, which obſtructs the nerves (tendons) and hinders voluntary motion; according to which account, different parts of the body were ſuppoſed to be affected with a ſimilar flux, which, from its ſituation, brought on different complaints.

Ætius.

Trallian.

ALEXANDER TRALLIAN †, who lived before PAULUS, more fully explains this ſubject. He ſays, de paralyſi, "the diſ-" eaſed reſolution, which the Greeks " have called πάρεσις παράλυσις, is nothing

* Secundus ſem. cap. 27 & 28.

† De arte med. lib. i. cap. 16.

" more

" more than a privation of ſenſe and
" motion. It differs from an apoplexy, Apoplexy.
" which is an abolition of ſenſe and mo-
" tion of the whole body, *with injury of*
" *the firſt principles of life*; and thus death
" happens. But a palſy is that diſeaſe, Palſy.
" in which one half of the body alone
" dies, or certain nervous (tendinous)
" parts are obſtructed, *without injury to*
" *the brain or ſpinal marrow*;" which differs very much from thoſe, who thought the brain to be the ſeat of the cauſe of this complaint.

This doctrine, however, did not become general; for PAULUS * maintained Paulus.
the old opinion, that this diſeaſe aroſe from all the ventricles of the brain being *ſuddenly* filled with a cold pituita, and that old people were more ſubject to this affection than others, from being of a pituitous habit of body.

Theſe theoretical ideas prevailed many centuries, with very little variation, till

* Lib. 3. cap. 18.

about

Hoffman. about the time of HOFFMAN, who ſays, " the cauſe of all kind of palſies appears " to be either a ſolution of the continuity " of the nerves, as in wounds, or other " violent injuries, or a compreſſion of " the nerves themſelves, or their origin, " by a ſtagnation or extravaſation of " blood or ſerum in the brain, or by

Boerhaave. " ſpaſm." BOERHAAVE too lays it down for an axiom in one of his aphoriſms, that the palſy, from an internal cauſe, is always occaſioned by an obſtruction of the nervous fluid by morbific matter;

Van Swieten. and his commentator affirmed, " that " whatever can attenuate this morbific " matter, ſo that it can be diſſipated or " evacuated, or after it is attenuated, " can change its ſituation, ſo that it ſhall " not hinder the action of the brain and " nerves, will cure a palſy *; which is " the ſame kind of doctrine GALEN and " his followers held forth, without diſ-

* Sect. 1064. This doctrine is only applicable to ſome kinds of ſpurious palſy. See ſpurious palſy.

tinction

tinction or qualification; and upon these principles irritating remedies and deobstruents have, it is well known, been in use in every kind of palsy, as the rational method of curing this malady. Cullen * indeed reprobates the propriety of employing stimulants †, but joins others in opinion, that palsy is caused by compression from effusion; which doctrine we shall presently consider. Cullen.

Now the moderns agree with the ancients in there being a great affinity betwixt apoplexy and palsy, because they seize in a similar manner, and because they change vice versa from one into the other. In some instances they appear to me to arise both from the same cause, and perhaps after all, the ancients were right, and they are only different degrees of the same disease under different circumstances, though there are no diseases in which the Modern opinion.

* First lines.

† He uses this word synonimously with irritating remedies.

ſymptoms are more unlike, eſpecially if we adhere to Trallian's diſtinction; for there is ſcarce any man, who does not know one from the other at firſt ſight; and this difference, I apprehend, is owing to the manner of affection, and to the ſtate of the body at the time it happens; a partial affection of the brain may produce an hemiplegia, as happened in the man at Ticknal, and ſeveral others we meet with, where a depreſſion of the ſcull is made upon one part of the brain only; a palſy from a diſeaſed viſcera has a local origin; whereas probably an apoplexy is more general, and a more violent affection of the nerves; beſides the one is of an inflammatory, and the other of a contrary diatheſis, as Marinellus has long ſince very juſtly obſerved *.

If

* "Species igitur apoplexia, ſicut ex dictis acci-
" pimus, eſt duplex; altera acuta & calida, quæ
" dicitur fortis, altera debilis, diuturna, & frigida.
" Quare duplex humor eſt cauſa utriuſque ſpeciei:
" humor enim acris efficit apoplexiam acutam; craſ-
" ſus,

If a palſy ſeizes the heart in ſuch a manner as to ſtop its motion, or if one of its ventricles burſt, death takes place in a moment, and the patient is ſaid to have died of an apoplexy. But this kind is very different from the nervous apoplexy, of which we have ſpoken, there being none of the agitation, or violent convulſive ſtruggle uſual in that complaint. Palſy of the head.

If the brain is violently ſeized with a palſy, and death does not immediately follow, the patient lies ſtill and mute, and the vital principle leaves the body quietly in a few days, unleſs medicine interferes, or if what Hippocrates ſays be true, the patient is ſaved by the intervention of a fever *; for this is the Head.

" ſus, pituita, & attrabilis, dinturnam." Marinelli Comment. 1°. in libris Hippocrates.

* I have never ſeen this verified in practice, and the few caſes I have read, which were thought to be cured by fever, were evidently ſpurious, and the diſorder capable of being removed by attenuating the fluids.

diſorder, I have not any doubt, to which he alluded in the aphoriſm, of which notice has been already taken.

If the ſtroke in the brain is leſs violent, there are more ſigns of life; a ſtate more or leſs betwixt living and dying, is experienced; and though the patient is not unfrequently delirious and reſtleſs, yet it is without ſnoring or violent reſpiration; nor is there that convulſive motion in the pulſe common to the apoplexy.

A difference betwixt apoplexy and palſy.

There is one well known ſymptom, which ſhews a material difference betwixt apoplexy and palſy; for in an apoplexy the vital principle, as Trallian expreſſes it, is injured, and except the ſad remains of life for a little time in the heart and thorax, ſenſation ſeems to be intirely aboliſhed; whereas in an hemiplegia, we all know ſenſation often remains after voluntary motion ceaſes to be performed, which we may explain without the Boerhaavean

haavean hypotheſis * to account for it, by calling to mind, that the will and ſenſation perform different offices, and, under certain circumſtances, act irregularly, independent of each other, as we ſee in ſlaughtered animals; for long after the head is cut off from the carcaſe, upon irritating the muſcular fibres, ſpaſms are inſtantly produced †; nor does this innate power of feeling vaniſh, till the vital principle leaves the body.

It is very well known, that a palſy ariſes both from external and internal cauſes, and theſe are various; moſt of which the Baron Van Swieten has enumerated; but we ſhall begin with the ſpontaneous or true palſy, which ariſes from a ſudden loſs of nervous power.

* To account for this ſymptom, it is aſſerted, Aphoriſm 1057, that ſome nerves ſerve for the ſenſe of feeling, and others for motion, and that the functions of the motatory may be hindered, while the nerves of feeling remain unhurt!

† Med. Surg. vol. 1. p. 165.

PART II. SECTION II.

On the ſpontaneous or true Palſy, from a ſudden Loſs of nervous Power.

Seizure inſtantaneous.

THE diſeaſe now before us is an inſtantaneous relaxation of the muſcles and tendons, uncontroulable by the will, not brought on by compreſſion, eroſion, ſuppuration, tabes cerebri, &c. or any ſuch mechanical cauſe, which occaſions a ſpurious palſy * only; but by the very ſubſtance of the brain or nerves being rendered in an inſtant incapable of performing their offices. Sometimes the diſorder makes its onſet with apoplectic ſymptoms, and leaves an hemiplegia behind; and we perfectly agree with Aretæus, as will hereafter appear, that the

* See ſpurious palſy. Hoffman has made a diſtinction betwixt true and ſpurious palſies, but very different from that we have been led to adopt. See de morb. atonia cerebri.

true

true palsy is often only a remission of motion and energy.

The Greeks call it παραλυσις, the Latins *resolutio nervorum*, and the English palsy or stroke; nor must we forget to observe what was omitted in the last section, that it unfortunately happened, when the appellation *nerve* was changed from the membranes, tendons, &c. to what might properly enough have been called encephalic cords; it carried with it an idea of the same disorder, affecting these new discovered parts, which were known to affect the muscles in palsies. Hence to an immeability in the juices from viscidity; atony in the nerves, arising from the brain, was added, as one cause of the complaint. It was supposed they became relaxed and weak; and it is not at all surprizing, according to the theory of the times, that irritating remedies, and warm attenuants, should be employed upon these imaginary principles. Theory.

That the cauſe of the incapacity in the muſcles to perform their office, in ſome ſpurious palſies, is a ſtoppage of the nervous fluid, ſecreted in the brain, and carried through its appendages, the compreſſion of a nerve demonſtrates *. But the queſtion that remains to be aſked is, where there is no extraneous or mechanical cauſe to intercept the nervous fluid in its paſſage from the brain; to what kind of affection in the nerves muſt this inability to perform their office be aſcribed? Nor do I know of any anſwer further than we may ſuppoſe the brain to loſe its innate power † we have elſewhere ſpoken of, wholly, or for a time, in the part affected, and become incapable

From compreſſion.

Query.

* See Boerhaave's Inſtitutes, ſect. 401 and 402, where many inſtances are enumerated, but the common accident of the leg having a temporary palſy in conſequence of preſſure on the great nerves, and the prickling ſenſation which immediately follows the removal of preſſure, is ſufficient.

† See Med. Surg. vol. 1. p. 171.

of

of being actuated by the agent that gives motion to nature ‡.

CASE I.

A man about forty years of age, uſed to hard labour, and of a ſtrong habit of body, complained of a ſickneſs at his ſtomach, and a dizzineſs in his head; wherefore, as his pulſe was regular enough, I ordered him a vomit, and ſome ſtomachic purging pills; and he got well. About a year afterwards he was ſeized with the ſame complaint, and not having an opportunity of ſeeing me, he ſent for a man that could bleed, who took from him about ten ounces of blood; an hemiplegia on the contrary ſide to that on which he was bled was the immediate conſequence, from which he recovered in a very little time, by opening his bowels occaſionally, and by the uſe of cordials, eſpecially wine, and a nouriſhing diet;

‡ See Med. Surg. vol. 1. p. 299, & ſeq.

and

and who can tell how this hemiplegia, from a general loſs of blood, happened? Even the cauſe aſſigned by Monro * for hemiplegia, though it accounts for the diſeaſe, when occaſioned by a partial affection of the brain †, does not explain this matter. Muſcular ‡ ſpaſm may be ſuppoſed, but the diſorder being local, embarraſſes the ſuppoſition, reduces it to a mere conjecture, and we wiſh to ſee conjecturing, as much as poſſible, aboliſhed from the ſcience.

Indeed I am convinced with FONTANA, that in the living body there are unknown powers, and latent principles, of which we are yet ignorant, and the only uſe we can at preſent make of this caſe, is to obſerve, that a palſy may ariſe without compreſſion, obſtruction, or viſcidity, &c. in the nerves; and we believe, whenever viſcid lymph is found about the nerves,

* Obſ. on Nerv. Syſt. chap. xi. p. 53.

† See back, p. 85.

‡ See p. 38.

in

in palſies of long ſtanding, it is a natural conſequence of the diſeaſe.

Nevertheleſs, though we cannot at preſent prove what kind of derangement the nerves undergo in a *true palſy*, yet we may obſerve it reſembles a blaſt, whoſe effects we know, without being able to diſcover the change that produces them.

This kind of derangement difficult to prove.

CASE II.

Many years ago four children of the ſame village in Nottinghamſhire, about ſeven years of age, were in the ſpring of the year ſeized in one night, while in bed, with the palſy. Three of them with an hemiplegia; two of whom died ſoon after, and the third went upon crutches the remainder of her life. But the man, who gave this account, now advanced to ſeventy years of age, loſt only the uſe of one arm, while ſleeping in bed betwixt two other people, who did not experience any injury. The arm is greatly emaciated,

emaciated, perfectly motionleſs, but very warm and ſenſible, in a fine ſtate of perſpiration when I ſaw him; and the pulſe is as ſtrong and frequent in this, as in the other. He believes his arm was not uncovered when the diſeaſe took place, and he remembers it was not very cold weather: whence it ſeems to appear, that the affection was owing to a particular ſtate of the air, and to a diſpoſition in the habit to receive the impreſſion it made. The man has always imagined his palſy to be occaſioned by a blaſt, and who can ſay to the contrary? I truſt, however, we ſhall be able to ſhew, that it is not a diſeaſe of the fluids, but of the brain itſelf; that the diſtinctions above made are neceſſary, and when further explained, we apprehend will be ſufficient for every purpoſe in practice.

Apoplexies and palſies change into each other.

We have already obſerved, that apoplexies change into palſies, and vice verſa; the patient is not unfrequently diſpirited; the muſcular fibres, in the affected part, are

are often, if not always, exceſſively irritable; irritation of the nerves of the primæ viæ, or of the other viſcera in the abdomen, will bring on an hemiplegia; bliſters ſometimes ſeemingly increaſe the diſeaſe, and opium relieves or cures it; all which will appear as we proceed; and from whence ſome concluſions will be drawn; but having no predilection in favor of any theory, we only mean to ſubſtantiate facts, and leave the reſt to the reader.

Perhaps, what is hereafter advanced may give ſome light in what manner the inability of the nerves, to perform their office in this kind of palſy, brought on by what has been called a ſtroke, is occaſioned; for we apprehend, practical hints, by determining a proper method of reſtoring the nerves to a ſtate of health, may develop the nature of the complaint. For which purpoſe we will give a faithful account of thoſe remedies we have found

moſt

moſt ſucceſsful, or the contrary; and the following narrative will ſhew the manner in which we have been led on, ſtep by ſtep, in the uſe of opium, and other ſtimulant ſedatives.

PART

PART II. SECTION III.

On the Cure of the true Palſy.

WE have juſt obſerved, that the diſeaſe under conſideration, is an affection of the ſubſtance of the brain itſelf, whether in the head, or in the nerves; in conſequence of which it ceaſes to be a conductor of that power, which occaſions muſcular motion; nor will even giving motion to the fluids, which belong to the nerves, relieve this diſeaſe, till they themſelves are reſtored to their own power, as the application of an electrical machine, which increaſes the motion of the fluids in every kind of conductor, evinces *. True palſy, what.

It follows then, to relieve the patient, we muſt apply to thoſe remedies, which act principally upon the brain and nerves;

* It has no apparent effect in a true palſy; but to underſtand this paſſage properly, it muſt be contraſted with what will be hereafter ſaid of the ſpurious palſy.

and

and being convinced, that thoſe which irritate increaſe, and that opium relieves the complaint, I was led to conclude, that irritating remedies were not appoſite to the cure of this malady, and ought not to be admitted; and that thoſe things which animate the nerves, and quiet the derangement they ſuffer, were more likely to do ſervice.

Now by animating remedies, we mean thoſe we alluded to in our definition of ſtimulants, being of the ſame claſs; but we have choſen the above name, that they may not be connected with old ideas; and we will now particularize ſome of them.

Opium ſtands firſt; but its cordial, exhilarant, and ſedative powers are ſo well known, as to make any explanation unneceſſary. If the tar ointment of the diſpenſatory, preceding the preſent, is applied to ſores, it occaſions a ſmarting, when it firſt comes in contact with the bare nerves; probably by the penetration

of

of the eſſential oil it poſſeſſes, which muſt be diſtinguiſhed from irritation, becauſe it neither inflames, nor occaſions a greater ſecretion of lymph, but on the contrary reſtores the part, if more ſenſible than common, to its natural ſenſation. It gives life and vigor to inactive muſcular fibres, which are uncovered, ſeemingly by a genial warmth, and in conſequence promotes incarnation. When taken inwardly it allays ſpaſms, and perfectly correſponds with its external effects.

The ſame may be ſaid of balſam of Peru, of balm of Gilead, and many other of the native balſams. Harris * ſays he has ſeen admirable effects from the Terebinthina Chia in this complaint; and from hence our idea of animating medicines, in the preſent inſtance, may be underſtood. The warm, ſedative gums have a ſimilar effect on the nervous ſyſtem; and beſides theſe, we have recourſe to æther, camphor, the eſſential oils, ſteel

* De morb. gravid. vel Allen's ſynopſis, art. 343.

wine, roſemary, valerian, madeira, and ſuch like remedies, in the cure of this malady; but previous to their uſe, the ſtate of the primæ viæ ſhould be attended to, this being often the ſeat of the diſeaſe; and our firſt ſtep, in every inſtance, ſhould be the common practice of giving a vomit; and this having had its proper effect, ſtomachic purges ſhould be given ſufficient to ſcour the alimentary canal, interpoſing every evening, after the operation of this medicine, an opiate to quiet the nerves.

In a few days we ſee the ground we ſtand upon; and if theſe evacuations produce a clearneſs of underſtanding, it is reaſonable to conclude, that the nerves of the ſtomach, being offended, gave riſe to the complaint, by that wonderful connection with, and influence they have over, the whole body; and if voluntary motion, though ever ſo little, appears in the affected limbs, there is hope of a more perfect recovery.

Signs of recovery.

On

On the contrary, if the intellects remain greatly impaired, after proper evacuations from the primæ viæ, especially if accompanied with a pain or numbness in the head on the opposite side, there is reason to think the seat of the disease is in that part; and it is in this instance, that the patient too frequently drags on a miserable life, with the loss of memory, &c. and when death takes place, the brain is generally found in a morbid state, as we learn from Morgagni's dissections *. Contrary.

These things being premised, we will adduce some of the cases which led us to the use of opium, &c. in the cure of apoplectic and paralytic affections.

CASE III.

In 1772 I was desired to attend a gentlewoman betwixt sixty and seventy years of age, who had long been troubled with an hemiplegia, and for some time with a

* Epistola 11. lib. 1.

ſmall inflamed ulcer, a little above the ancle of the ſame ſide. The leg, as well as the arm, was perfectly motionleſs, but poſſeſſed feeling and moderate warmth; the ſore was ſo extremely ſenſible and irritable, and attended with ſuch exquiſite pain, that ſhe could neither get reſt night nor day; and whenever the ſore was touched with lint to take up matter, though in the moſt gentle manner, the whole ſide of the body, as quick as lightning, was ſeized with violent ſpaſms.

The ſenſibility of the affected part pointed out that anodynes were proper, whether they ſuited the theory of the times reſpecting palſies, or not; and I therefore ordered her twenty drops of laudanum, twice a day, while the pain required it; taking care at the ſame time that ſhe did not become coſtive. Laudanum was alſo mixed with the ſedative balſams that were uſed to the ſore; and to the parts about the ulcer the ſtictícum, a little ſoftened with oil, was applied;

by

by which both the pain and extreme ſenſation were conquered, and the ſore cured. Nor did we with leſs pleaſure behold an amendment of the paralytic ſide, for her leg and arm, though they did not get perfectly well, recovered very much. The ſpaſms had entirely left her, and her health and faculties were greatly reſtored, ſo that ſhe enjoyed ſeveral years the remainder of her life comfortably.

This was the firſt hint I had of the uſe of opium in this diſeaſe. I have ſince given it frequently in palſies, and under the reſtrictions we ſhall hereafter have occaſion to mention, I think often with ſucceſs, without ſetting down to the account every recovery I have ſeen happen; knowing very well, that palſies will often ſpontaneouſly leave the patient without medical aſſiſtance. But of this I am certain, if opium fails to relieve the patient, he will meet with no injury from its uſe. Nor am I quite ſingular in this opinion, for in a kind of paralytic affection of the

arm, where Dr. Charlton * gave four grains of opium a day, with aſſafœtida, a long

* This caſe I think belongs to the claſs of ſhaking palſies, and we will give an abſtract of it, as it is curious. "Mary Ford, of a ſanguineous and robuſt "conſtitution, had an involuntary motion of her "right arm, occaſioned by a fright, which firſt "brought on convulſion fits, and moſt excruciating "pain in the ſtomach, which vaniſhed on a ſudden, "and her right arm was inſtantaneouſly flung into "an involuntary and perpetual motion, like the "ſwing of a pendulum, raiſing the hand at every "vibration higher than her head; but if by any "means whatever it was ſtopped, the pain in her "ſtomach came on again, and convulſion fits were "the certain conſequence, which went off when "the vibration of her hand returned."

"During ſleep the motion of her arm ceaſed, but "the inſtant ſhe awoke (and ſhe was always awaken-"ed by pain in the ſtomach) it returned and con-"tinued without intermiſſion the four and twenty "hours."

"She was a patient in the Exeter infirmary nine "weeks without relief. She drank the Bath waters, "and bathed in the Bath about one month without "amendment; upon which ſhe took a medicine, "compoſed of aſſafœtida and opium."

"She

a long time together, he obſerved it neither occaſioned drowſineſs, relaxation of the ſolids, nor any defect in the performance of thoſe functions on which health depends; and the reader will judge for himſelf, whether the opium had not a principal ſhare in the recovery of this woman †.

CASE

" She began with a grain of opium every day, " and gradually increaſed the quantity to four grains " in the ſame ſpace of time; but this, while ſhe " continued another month under a courſe of bath- " ing, did no good. On the contrary, thoſe days " ſhe went into the bath, her ſpirits and ſtrength " were much weakened; wherefore the bath was " diſuſed, and her back only pumped upon every " or every other day, as long a time as ſhe could " bear it. Drinking the waters, and her medicines, " were continued; for the effects of opium above- " mentioned were obſerved, and by this method in " three weeks ſhe began to amend, and ſoon after " got intirely well."

Charlton on Bath Waters, p. 53. & ſeq.

† Dr. Falconer, who has had many opportunities of ſeeing paralytic patients, in a very late publication informs us, " that he is convinced, from repeated

CASE IV.

A gentleman, more than fifty years of age, low in ſtature, and fat, with a pulſe rather full, ſubject to the gout, and who indulged in high living, was ſeized with ſymptoms of an apoplexy, that ſoon degenerated into an hemiplegia, which left him in a ſhort time, as he himſelf informed me, and he continued three or four years without any return of the diſorder. Nevertheleſs, one day after dinner he was ſeized with a dizzineſs in his head, and wildneſs in his looks, and being almoſt choaked, fell down convulſed.

" experience, that however appearances may be " againſt the uſe of opium in palſies, they are fal- " lacious; and that opium, when indicated by pain, " ſpaſm, uneaſineſs, or other troubleſome ſymptoms, " may be employed with as much ſafety in a palſy, " as in any other complaint. The Turks, who in- " jure their health ſo much by opium, do not more " frequently die of palſies than other people." Mem. Med. Soc. Lond. vol. 2. This is a full anſwer to Young on Opium.

Having

Having dined with him, I was preſent, and immediately got down a baſon of camomile tea, ready upon another occaſion, which vomited him freely, and he was ſoon much better; but a pain remained in his head, his pulſe was full, and much agitated; and notwithſtanding he was purged that night, and next morning, a paralyſis on one arm came on; of which, together with a pain in the head, he recovered in leſs than a week, while he was taking a grain of opium every night at bed-time.

About a year after this he was ſeized, as I have been informed, with another fit, ſoon after he was got into bed. By a great effort he aroſe, but expired almoſt immediately. Nor is it poſſible to have a clearer inſtance of an apoplectic diatheſis, and of the effects of irritating or offending the nerves of the ſtomach in ſuch a habit.

CASE

CASE V.

Another gentleman, about fifty years of age, of a gouty habit, though temperate in his way of living, and not corpulent, being at his writing-desk soon after dinner, felt, as he expressed it, a rushing into his head, and soon became dizzy. He had just time enough to alarm the family, who came to his assistance, and found him dropped down upon the floor apparently dead; nevertheless he soon became better, and very well knew the people about him; but there remained a great pain both in the fore and back part of his head; upon which his apothecary took a small quantity of blood away, and cleared the primæ viæ both by purging and vomiting, but without effect; for the pain in his head continued, and he now perceived a numbness in one hand, a spasmus cynicus (I suppose from the stroke affecting some particular nerves serving

ſerving the head) in a ſmall degree ſhewed itſelf, the eye-lid became weak, and the eye on that ſide the face watered.

I now ſaw him for the firſt time; his pulſe was ninety, and I ordered him ſome James's powder, which, though it operated by ſtool, produced no other effect. Twenty drops of laudanum were then given, which relieved him; and afterwards, by taking a grain of opium, with a ſcruple of gum ſagapenum, and a drachm of æther in a draught twice a day, keeping his bowels open, the nervous ſymptoms were all removed, his pulſe was ſoon reduced to ſeventy, and the bark, gum pills, and opium, reſtored him to perfect health.

CASE VI.

A gentleman about the ſame age was ſeized with a giddineſs in his head, and fell down, but after ſome time his ſenſes returned, and he was found to have loſt the intire uſe of one ſide. His apothecary having

having purged him, I began with ordering a ſcruple of Dover's powder to be taken at proper diſtances; and by ſuch time he had taken three or four doſes, the effects of the opium were powerfully evident, which being laid aſide, he awoke with a clear head, and the uſe of the limbs very much reſtored. As he had not had a ſtool during the exhibition of the opiate, his bowels were opened. He afterwards went on with twenty drops of laudanum every night; and under the uſe of the animating gums in the day-time, joined with æther and opening medicines, he perfectly recovered the uſe of his limbs.

Unfortunately he was now ſeized with a fit of the gravel, a diſeaſe to which he had been ſubject. This, as I afterwards diſcovered, brought on, no uncommon ſymptom, a delirium, which was aſcribed to debility, &c. and the apothecary, who alone had the management, ſuppoſed a

fatal

fatal termination would be the conſequence; but a diſcharge of ſix ſtones, ſome of which were of a large ſize, removed the ſymptoms that threatened immediate danger.

Previous to this in my abſence a conſultation was propoſed, and late one night I was deſired to meet two more phyſicians in conſultation next morning; but being engaged a great way from home, I did not know any thing of the appointment till the time was over, and one phyſician only attended, who took the patient into his own hands; but he was ſo well recovered upon the paſſing of the ſtones, that he recommended a journey, more than an hundred miles, to Bath, which was to take place the beginning of the following week, after he had ſeen him, and preſcribed for him again. But the directions given were not attended with an happy iſſue, his journey being prevented by a return of the palſy; and,

I am

I am well informed, he was bliſtered *, and died.

CASE VII.

A gentleman's butler was ſeized with a violent ſpaſmus cynicus, accompanied with great pain in the head, juſt under the lower edge of the temporal muſcle, on the contrary ſide to that on which the lips were preternaturally drawn. To allay this ſymptom, ſnow, ice, and ſalt mixed, had been repeatedly applied on that ſide the head, but without any good effect. On the contrary, there followed a great ſuffuſion of blood in the veſſels of the tunica adnata of the diſeaſed eye, and the lower eye-lid was drawn a conſiderable way down the cheek. Various remedies, I was told, had been uſed, but apparently without any advantage; and I had a fair opportunity of trying whether opium would be more ſucceſsful.

* General practice ſanctions this proceeding, but whether right or wrong time will diſcover.

We

We began with a purge, and this having done its office, recourſe was had to pills compoſed of the gum pill, extract of bārk, Pill Rufi, of each one drachm, and opium twelve grains made into thirty-ſix pills, four of which were taken twice a day, together with three tea ſpoonfuls of a mixture compoſed of equal parts of æther and chalybeate wine, and his face on the affected ſide was rubbed with æther alone. In the ſpace of a week he was better, the pain in his head, which had not yet left him, was diminiſhed, and the diſeaſed muſcles had manifeſtly gained ſtrength, becauſe the lips on the oppoſite ſide were leſs contracted; and every time I afterwards ſaw him, I could perceive a conſiderable amendment. But though he continued to get better, he became tired of medicines, and left them off; nevertheleſs he recovered in a moderate ſpace of time, and he is now amazingly well in his conſtitution, and the deformity of his face is removed.

CASE

CASE VIII.

The following caſe, though not ſtrictly a true palſy, was owing, in all appearance, to a derangement in the ſubſtance of that part of the brain, extended to the lower parts of the body; and as it finally gave way to the ſame treatment, we place it in this claſs. It is taken from the diary of Mr. Salt, the younger, of Lichfield, to whoſe accuracy and attention we are greatly indebted, as it is a good inſtance of the different effects of irritating, and ſtimulant ſedative remedies in paralytic affections. *

* It is worth conſidering how far the derangement of the brain in concuſſions, and in the true palſy are ſimilar. They reſemble each other in ſome particulars; and perhaps the inquiry might throw a light upon the ſubject, if any thing certain could be diſcovered. According to Bromfield they are cured in a ſimilar manner, and if his obſervations are confined to concuſſions alone, perhaps they may be properly applied.

On

On a paralytic affection from a concuſſion of the ſpinal marrow.

" September 22d, 1786, William " Simms, a ſtrong, healthy man, forty " years of age, was thrown from his horſe, " and fell with conſiderable force upon " his poſteriors. He ſoon complained " of violent pain in the lumbar region, " darting pains down the thighs, of a " want of ſenſation, and a numbneſs in " the lower extremities, which were cold; " the right leg was the leaſt affected, and " his pulſe was ſmall and ſlow. Ten " ounces of blood were taken away, and " a ſpirituous embrocation applied to the " loins, though there was no external " appearance of contuſion."

" 23d. There was no alteration in the " ſymptoms; he had not yet had any " inclination to make water, or to have " a ſtool; he had little ſleep only in the " night, but his pain diminiſhed upon " going into a warm bath. Eight grains " of calomel were now given, and a doſe

" of a ſtrong purging mixture was or-
" dered to be taken every two hours, till
" it opened the bowels. Upon exami-
" nation in the afternoon his bladder was
" found, when he lay upon his back, in
" a flaccid ſtate, and to extend to the
" navel. As he had not yet had a ſtool,
" ten grains more calomel were given,
" and a ſtronger purging mixture; for
" the ſphincter ani was ſo perfectly re-
" laxed, that clyſters could not be re-
" tained; and though three pints of dark
" coloured urine were taken off from the
" bladder, it was neceſſary to preſs upon
" the abdomen, to force it through the
" catheter. It was diſcovered that the
" urethra was perfectly void of ſenſation,
" and having his mind much depreſſed,
" a cordial mixture was ordered."

" 24th. He felt griping pains in the
" upper part of his bowels only, (where
" he knew by his own feelings, that the
" ſhock had not extended) and had many
" ſtools, but without the leaſt knowledge

" of

" of their coming away. Nevertheleſs,
" his pain was rather diminiſhed, and
" his legs acquired rather more ſenſation,
" but he was ſtill depreſſed; upon which,
" a nutritive diet was ordered, the cor-
" dials repeated, his water was again
" taken away by the catheter and preſ-
" ſure, and twenty drops of laudanum
" were given him at bed-time."

" 25th. He had a greater degree of
" ſenſation, and moved his legs freely,
" but his water was ſtill obliged to be
" taken away by the catheter and preſ-
" ſure. The urethra and rectum were
" perfectly relaxed and inſenſible, his
" ſpirits rather amended, but he had no
" ſtool to-day."

" 26th. His pulſe was only fifty. The
" purging mixture was repeated; he had
" ſeveral involuntary ſtools; his urine
" was removed by the catheter, &c. and
" the anodyne given at night."

" 27th. A degree of contraction was
" obſerved in the urethra and ſphincter

" ani. In addition to the cordial mix-
" ture, and anodyne draught at night,
" twenty drops of tincture of cantharides
" were ordered, to be taken every eight
" hours."

" 28th, 29th, 30th. The ſymptoms
" continued without alteration. The
" ſame treatment was purſued, except
" that the doſe of tincture of cantharides
" was increaſed to thirty drops. He had
" now involuntary ſtools, and theſe only
" when he took the purging mixture.
" His urine was ſtill obliged to be taken
" away in the uſual manner every day."

" Oct. 1, 2, 3, 4, 5, and 6. No ſort
" of alteration; wherefore the doſe of
" tincture of cantharides was increaſed
" to forty drops each time. Neverthelefs,
" the rectum was once ſo diſtended with
" indurated fæces, that they prevented
" the introduction of the catheter into
" the bladder, till they were ſcooped
" away, of which operation he was per-
" fectly inſenſible; therefore a large bliſ-

" ter

" ter was applied to the upper part of the
" os ſacrum."

" 7th. The medicines laſt preſcribed
" were continued."

" 8th. He complained of fulneſs in his
" bladder, lancinating pain in the ure-
" thra, and a ſmarting after the uſe of
" the catheter. His medicines were con-
" tinued, but the doſe of tincture of can-
" tharides was increaſed to a drachm,
" upon which his pulſe became more
" frequent, and the ſphincter ani con-
" tracted."

" 9th. No alteration. Feeling a diſa-
" greeable ſenſation in his bowels, the
" calomel and purging mixture were re-
" peated, but the ſtools were ſtill invo-
" luntary. Upon introducing a finger
" into the anus, the inner coat of the
" rectum was found to be much thick-
" ened."

" 10th & 11th. He perceives his ſtools,
" when coming away, can aſſiſt in pro-
" truding them, and his water frequently

" comes away upon coughing. Draughts
" with bark and canella alba ordered.
" The tincture of cantharides continued.
" The opiate increaſed to twenty drops of
" Thebaic tincture every night."

" 12th, 13th, 14th. But little altera-
" tion, excepting that much leſs of the
" cathartic mixture purges, but his urine
" comes away involuntarily."

" 16th. Till this time the medicines
" have been continued, but no alteration
" in the patient."

" 28th. He had now ſtools without
" cathartics, the rectum had recovered its
" ſenſation and contraction. He voids
" urine frequently, by compreſſing the
" bladder ſtrongly with the muſcles of the
" abdomen. He can walk with crutches
" but his toes are much contracted."

" The tincture of cantharides increaſed
" to two drachms at each doſe, and a
" large ſpoonful of muſtard ſeed was
" given every morning."

" Nov

"Nov. 1ſt. By ſtrongly contracting the "abdominal muſcles, he could void his "urine. He continued the bark and "the opiate every night for ſome time, "and by degrees acquired conſiderable "ſtrength and ſpirits. Coſtiveneſs now "being his chief complaint till Sept. "28th following, when he had the miſ-"fortune of loſing his wife, which great-"ly affected his ſpirits, brought on a pain "in his back, a diminiſhed ſenſation both "in this part and the lower extremities, "and a ſuppreſſion of urine, which was "removed by the catheter, and taking "cathartics. His mind was much de-"ranged, and wracked by falſe notions. "He was almoſt conſtantly in a profuſe "perſpiration, and complained much of "thirſt, horrors, and inward heat."

"Valerian, bark, guaiacum, &c. were "given, and a bliſter was applied to the "back. Afterwards his fœces came away "involuntarily."

On Dec. 8th I ſaw this patient, and

had the pleaſure of meeting Dr. Jones, who had attended him ſome time. We found his ſpirits much agitated, his pulſe low, betwixt ſixty and ſeventy, and he got but very little ſleep. He could not have any ſtools without the aſſiſtance of art, and found great difficulty in making water. His toes were ſtill contracted, he had very little uſe of the lower extremities, and apparently the paralyſis was again approaching with rapid ſtrides.

Upon entering on the buſineſs, I gave the doctor a ſhort ſketch of my ideas about the cure of palſies, and we ordered the following medicines.

℞ Aq. Puleg. Simp. — ʒ x
Gum Sagapeni — ϑ i
Ætheris Vitriol — ʒ i
Tinct. Theb. — gt. x

fiat hauſtus ter die ſumendus.

℞ Petrol. Barbadens — ʒ iv
Spt. Sal. Ammon. — ʒ iv

fiat litus, quo embrocetur ſpina dorſi ſemel vel bis die.

Mr.

Mr. Salt told me, "that after taking "the draughts a little time, his mind "became more ſerene, his pulſe ſtronger, "his ſtools and urine regular and volun- "tary, his pain ceaſed, and the ſenſa- "tion of the lower extremities increaſed. "He perceived no other ſenſible effect "from the medicine than a degree of "drowſineſs; and being continued until "January 25th 1789, he had no com- "plaint left."

Perhaps the irritating plan, recommended ſo often in paralytic affections by men of the firſt abilities, never had a fairer trial; and we have copied the narrative at length, as we ſhall hereafter have occaſion to make uſe of it. At preſent, however, it muſt be obſerved, the firſt relief the patient received, though ſmall, was from the warm bath, and purging; but much more benefit was derived from the opium given on the 24th; for on the 25th he had a greater degree of ſenſation, and moved his legs freely;

freely; and on the 27th, after another doſe of opium, a degree of contraction was obſerved in the urethra and ſphincter ani; and how far the opium, which was given every night, and bark, contributed to the firſt recovery, deſerves conſideration.

On a ſhaking palſy, apparently from worms.

CASE IX.

A poor boy, about twelve or thirteen years of age, was ſeized with the ſhaking palſy. His legs became uſeleſs, and, together with his head and hands, were in continual agitation. After many weeks trial of various remedies, my aſſiſtance was deſired.

His bowels being cleared, I ordered him a grain of opium a day in the gum pill; and in three or four days the ſhaking had nearly left him. By purſuing this plan, and keeping his bowels open,

he

he could ſoon walk, but was incapable of ſpeaking a ſingle word for ſeveral weeks afterwards; in which time his father told me, that many ſmall worms crept from him every night when in bed. Upon this information I ordered ſome calomel, &c. but he did not take it, and got well by the medicines he was purſuing, which, in this inſtance, proved a vermifuge. The laſt time I ſaw him, I had the pleaſure of hearing him talk very well, and of ſeeing him perfectly reſtored to health. A curious inſtance this of the effects of irritation in the bowels, of the power of opium in animating the nerves, and of rendering them inſenſible to the offending cauſe, where the bath waters moſt frequently fail.

Theſe are a few of the trials I have made, and I am ſo well convinced of the good effects of opium in the cure of the *true palſy*, that I now order it without heſitation, much in general to my ſatisfaction.

faction. But I do not think large doſes are at all neceſſary; two or three grains in the ſpace of twenty-four hours appearing to me to be fully ſufficient where it is capable of doing ſervice.

PART

PART II. SECTION IV.

On ſpurious Palſies.

IT has already been obſerved, that a true palſy is owing to ſome kind of derangement in the ſubſtance of the brain itſelf, from an inſtantaneous or ſudden alteration that occaſions its ceaſing to be a conductor of the powers of motion. On the contrary, the ſpurious palſy, unleſs from accident, or metaſtaſis of morbid matter, attacks gradually more or leſs. It is the palſy the Baron Van Swieten every where treats of, and to which his theory and practice can only be applied. The brain, in the affected part, continues in the enjoyment of its powers, but is interrupted by ſome mechanical cauſe, as is evident from the palſy ceaſing upon ſuch cauſe being removed. This is daily experienced in every paralytic affection ariſing from preſſure. And we may further

Difference betwixt true and ſpurious palſy.

further obſerve, that in the true palſy we have often much aſſiſtance from the ſpontaneous efforts of nature without the help of medicine; whereas it more commonly happens in ſpurious palſies, that the extraneous impediment to a cure muſt firſt be removed by art, before nature can give her aſſiſtance.

CASE X.

A miller's lad, being thrown from his horſe, received a partial diſlocation of the neck, and a paraplegia * was the immediate conſequence; but his neck being pulled ſtrait two hours afterwards, the uſe of his limbs ſoon began to return, and a perfect recovery followed bleeding, and the uſe of topical applications to the bruiſed parts.

* This word I ſee is uſed in different ſenſes. Aretæus ſays, "it is an affection of the ſenſe of touch "or motion in one member only, ſuch as the hand "or leg;" we have here uſed it in the more common acceptation, *a palſy of all the parts below the neck.*

CASE

CASE XI.

A mandrel falling down the ſhaft upon a collier's head, who was at work, fractured his ſcull, and depreſſed a conſiderable portion of bone. An hemiplegia, with the loſs of ſight of the eye on the *ſame ſide* as the injury, were the conſequence; but upon removing the preſſure by taking away the bone, his eye-ſight and limbs were reſtored. Which common caſes we introduce to point out, that we have nothing more to do in recent paralytic affections, ariſing from obſtruction or compreſſion, where the ſubſtance of the brain is not injured, than to remove the extraneous cauſe of the diſeaſe; which we will illuſtrate by a few inſtances.

CASE

On a paralytic affection arising from cold and damp.

CASE XII.

Palsy from taking cold.

A boy about fifteen years of age, at Neatherseal, had been inoculated for the small pox; and having but about ten pustules upon him, went out at the height of the disease in the latter end of June, or the beginning of July, to harvest work; but finding himself not well, while loading hay, was ordered home. He stopped, however, in his way, and laying himself down upon the grass in an open meadow, fell asleep, and received upon his body, being almost naked, a misling rain for several hours, till he was found senseless, and nearly dead. His pulse was very feeble and slow; his limbs were perfectly cold and useless; when lifted up, his head fell down, like a man newly dead; his tongue hung out of his mouth; he slavered much, and appearing so lifeless, there was but little prospect of his recovery.

He

He was, however, well rubbed with warm flannel, aſſafœtida clyſters were given, a bliſter was applied to his back, the cordial confection, diſſolved in a volatile julep *, was forced down by the help of a ſpoon with difficulty by a little at a time; when he could ſwallow better, warm poſſet drink was now and then given him; and as ſoon as poſſible a warm purge; which means produced a moiſture on his ſkin, and he recovered, ſo that in a week he ſeemed to be out of danger, and in a ſhort time got perfectly well.

CASE XIII.

"A luſty and healthy young man, 'aged twenty-one years, being violently 'heated, threw himſelf on the ground, 'and fell faſt aſleep. He was found,

* ℞ Aq. Menth. Pip. ℥ iv
Spt. Minder. ℥ ii
Sal. Vol. c. c. gt. xx
Sacchar. alb. ʒ ii
fiat julapium.

" after ſome hours, utterly incapable of
" voluntary motion, ſenſeleſs, with great
" coldneſs of the limbs, and ſurface of
" the body; he was deprived of the
" power of ſpeech, and his water flowed
" involuntarily. He was bled; a purge
" was given him, and a bliſter placed
" upon his back; notwithſtanding which,
" a very conſiderable degree of ſtupor,
" frequent unequal reſpiration, and a
" pulſe ſlow and full remained."

" Upon this, March 28th, ſtimulating
" clyſters were adminiſtered, the whole
" head was covered with a bliſter, a
" ſtrong volatile liniment was applied to
" the pubis, to the ſpine of the back,
" and to the lower limbs. A bolus, con-
" ſiſting of volatile ſalt, and cordial con-
" fection, each one ſcruple, and one grain
" of cantharides, was given every ſix
" hours, and waſhed down with a ſtrong
" infuſion of valerian, horſe radiſh, muſ-
" tard ſeed, and canella alba, but with-
" out any effect; wherefore, March 31ſt

" th

" the volatile ſalt and confection were
" increaſed to half a drachm each, and
" the grain of cantharides was added to
" it as heretofore; but inſtead of once
" in ſix hours, it was repeated with the
" infuſion every three hours."

" April 4th. After a clyſter, ten grains
" more volatile ſalt, and a grain of can-
" tharides, were added to the bolus. On
" the 6th in the evening an alteration in
" the ſymptoms took place, he became
" reſtleſs, was able to toſs himſelf about,
" and frequently applied his hand to the
" region of the pubis (being yet unable
" to ſpeak) ſeemingly from its being the
" part moſt aggrieved. Nevertheleſs,
" from this time he daily amended; and
" with the aſſiſtance of gum guaiacum,
" volatile ſalt, cantharides, an infuſion
" of valerian, plaſters to the ſoles of his
" feet, aromatics, ſteel, the bark, and the
" cold bath, nothing on the 12th of May
" remained of the diſeaſe, except a trifling

" weakneſs of his left hand, of which
" he ſoon recovered."

Now both theſe laſt inſtances ſeem to have been of the ſame ſort, and to have ariſen from the vaſa minima, and the brainular ſyſtem, &c. being rendered by cold and obſtruction incapable of performing their office; and theſe impediments to a recovery were in all likelihood removed by increaſing the circulation, and by rendering the whole ſtate of the veſſels pervious by the volatile ſalt, cordials and bliſters; nor is the want of ſucceſs from large doſes of volatile ſalt, in a true palſy, any argument againſt their effects in the preſent caſes. In the one, as we have already obſerved, animating and ſedative remedies are required; in the other, acrid medicines, capable of diſſolving and ſetting at liberty the confined fluids, are appoſite aſſiſtants. Hence it follows, that the ſucceſs, in the above caſes, is no rule for practice in the true palſy; for theſe diſorders differ as much

from

from each other in their nature, as inflammatory and nervous cholics; and that which would do ſervice in one, will do injury in the other.

It has been thought, that the recovery of the laſt patient was chiefly effected by the cantharides; but ſurely without clear evidence to ſupport ſuch an opinion, as when we ſpeak of the effects of cantharides in palſies, will more fully appear. At preſent we ſhall only obſerve, that we do not think it poſſible to ſay what ſhare they had in the recovery, becauſe volatile ſalt and ſtimulants were given at the ſame time; and if nothing was expected from two ſcruples of volatile ſalt at a doſe, why was it given every three or four hours? Indeed there is every reaſon to conclude, that it was a chief agent in the cure; becauſe we ſee it was ſucceſsful in a ſimilar inſtance, where cantharides were not given; and becauſe attenuants and deobſtruents were the remedies principally required.

But the queſtion is, are ſuch large doſes of volatile ſalt neceſſary, though we have ſeen the Baron Van Swieten ſet the example, with larger doſes than were given in the caſe juſt quoted? To which we may anſwer, that much leſs doſes ſucceeded in the lad at Neatherſeal, and in ſome other paralytic affections we ſhall have occaſion to mention. And thoſe who are acquainted with the effects of the Bolus ad Caſum of Fuller, know very well, that five grains of volatile ſalt, taken every four hours in Venice treacle, and waſhed down with poſſet drink, will ſoon raiſe a moſt profuſe ſweat, which, by rendering the whole ſtate of the veſſels pervious *, accompliſhes the point, which ought

* Fifty years ago, when I firſt entered into the profeſſion, this remedy was very much uſed after bleeding in general bruiſes, and I have frequently ſeen it produce excellent effects. When I had the care of ſeveral collieries, I often had recourſe to this practice in violent bruiſes, from great quantities of earth or coal falling upon the men; and I think, from

ought to be had in view under theſe circumſtances; and what more is neceſſary?

CASE XIV.

A woman took a cold in the early part of her lying in, loſt the uſe of her legs and thighs, and they appeared to be perfectly paralytic; but upon opening her bowels, giving a ſweating julep, and applying a volatile liniment to the affected parts, ſhe ſpeedily recovered; ſeemingly, becauſe the whole ſtate of the ſmall veſſels was made permeable, the obſtruction removed, and the nerves, which had no diſeaſe in themſelves, were left at liberty to perform their office.

from the plentiful ſweat which it brought on, I have ſeen ſpeedier recoveries than when Sydenham's method of bleeding and purging was adhered to alone; though I never failed to purge the patient when ſweating had done its office. And though I have modernized the practice, in conſequence of what has been ſaid about the effects of heating ſudorifics, I cannot in this inſtance diſcover that I have amended it.

CASE XV.

A young woman, who imagined ſhe had taken cold, but not at any particular time, was ſeized with a great pain in her bowels, attended with a paralyſis of the lower extremities, which did not give way to calomel, and warm purges, in which there was balſam of Peru; but upon giving her James's Powder, and Mindererius's ſpirit in peppermint water, ſhe ſweat moderately, and was cured, probably, by ſome kind of obſtruction being removed. Paralytic affections, from a ſudden check of perſpiration, &c. come under this head, and examples are unneceſſary.

Rheumatiſm.

Somewhat ſimilar to theſe are paralytic affections ariſing from rheumatic complaints, becauſe they are not occaſioned by any internal affection of the nerves themſelves, but by glairy lymph ſtagnating in the lymphatic veſſels about the

the nerves, the membranes, and ligaments, and in the interſtices of the muſcular fibres, &c. conſequently the attempts to cure in this inſtance muſt be by remedies proper for the rheumatiſm, under its different circumſtances, though opium, on account of pain, may often be an uſeful aſſiſtant.

Compreſſion.

Suppoſing the diſeaſe to be occaſioned by a gradual ſurcharge of lymph, or, as Boerhaave calls it, of morbific matter, overloading and diſtending the veſſels, within a portion of the ſubſtance of the brain, in ſuch a manner as to obſtruct or compreſs it; attenuating the fluids, and making a derivation from the affected part, muſt of courſe be a proper method of attempting a cure; and we have accordingly ſeen it ſucceſsful under ſuch circumſtances. Or it is juſt the ſame thing, when a local palſy happens, from lymph ſtagnating betwixt the coats of the nerve, ſo as to compreſs it; for ſetting the fluid at liberty, in the manner

we

we ſhall have hereafter occaſion to mention, is the remedy; nor is it neceſſary to notice any other examples of this kind, as they will preſent themſelves to the mind of every intelligent practitioner; and in ſpeaking of the remedies in common uſe, the ſubject will naturally be reſumed.

Worms. We have given a caſe of a ſpurious palſy, occaſioned by worms, in which opium and the gum pill cured the patient. But though we imagine opium will always be ſerviceable in ſuch inſtances, yet we think at the ſame time we give opium, attention ſhould be paid to removing the worms by the remedies proper for this purpoſe.

Lead. We have in this neighbourhood pot-kilns, in which much lead is uſed. The workmen, who powder the ſcoria of this mineral, are ſubject to the bellon, and to a paralyſis of the limbs, from ſwallowing the duſt which ariſes in this operation. It is almoſt impoſſible to conceive the quantity

quantity of lymph, which is ſecreted into, and becomes ropy in the ſtomach, &c. and being coloured by the lead, is called by theſe artificers ſludge. I have ſeveral times ſeen both the cholic and paralyſis cured by repeated vomiting, and ſmart purges; for ſtronger purges are required in this inſtance than in any I know of. Nor is any good to be expected till the primæ viæ are well cleared. Afterwards I have given a ſaponaceous emulſion, compoſed of ſalt of tartar, oil, and water, by which, and the balſam of peru, whoſe eminent ſervices have ſo often been experienced in the cholic of Poictou, the patient has frequently recovered.* But there is an uſeful paper on this ſubject, in the twenty-ſecond article of the firſt volume of the Edinburgh Eſſays, and obſervations phyſical and literary, to which, and Sir George Baker's obſervations con-

* Other kind of poiſons, when they bring on paralytic affections, beſides clearing the primæ viæ, muſt be treated with proper antidotes.

cerning

cerning the cholic of Poictou, * I refer for fuller information.

From affections of the viscera.

But the nerves of the primæ viæ are not only to be attended to; those in the other parts of the viscera, I am convinced, are often the seat of the disease. Affections of the liver, spleen, pancreas, and mesentery, &c. bring on paralytic affections in the limbs; and these must be treated with their own proper remedies along with opium; otherwise, though opium might mitigate the symptoms, patch-work only would be the consequence.

Convulsions.

In like manner, when a palsy arises from convulsive spasms, opium is a powerful assistant, to such medicines as are usually administered to remove the cause of spasmodic affections.

Opium when to be given.

In short, in the true palsy, opium is much to be depended upon, but in the spurious palsy, it is at all times only an auxiliary.

* Med. Trans. vol. 3, p. 407.

PART

PART II. SECTION V.

On the common remedies in uſe for the cure of Palſies, and Paralytic Affections.

THESE have already been enumerated by Cullen, * under the name of ſtimulants; by which he means irritating remedies, becauſe, he ſays, "they ſhew "their power by irritating the ſkin." † Stimulants, according to our definition, have no ſuch effect; and I believe, upon fair enquiry, it will appear, that irritating remedies, whether externally or internally employed, are applicable only in ſpurious palſies; and that they often do harm, and never ſervice in the true palſy. Even Cullen, in ſumming up the evidence his long experience had produced, ſays, "with reſpect to the whole of

Irritating remedies when proper in palſies.

* Firſt lines, vol. 3, p. 61.

† Ibid. p. 62.

"theſe

" theſe internal ſtimulants *, it is to be " obſerved, that they ſeldom prove very " powerful †; and wherever there is any " doubt concerning the nature or ſtate of " the diſeaſe, they may readily do harm, " and are often therefore of ambiguous " uſe;" all which, as the matter at preſent ſtands, we believe to be true; and ſhall be happy if a different view of the ſubject leads to more certainty.

Aromatics. Aromatics have been in conſtant uſe in this complaint. They are ſtimulants, which are ſaid to act chiefly upon the ſanguiferous ſyſtem. The nerves of the ſtomach are alſo, no doubt, affected by them; and they may, perhaps, have been uſeful, by warming the nerves of this viſcus, where warmth is wanting; but

* This book, we ſuppoſe, is in every body's hands; and we therefore do not copy them, we allude however here to what are called the ſtimulantia cardiaca, cinnamon, nutmegs, and wine, &c. Vol. 3. p. 70. 1112.

† See alſo Dr. Falconer's paper in the Memoirs of the Med. Society. Vol. 2. p. 221.

injurious

injurious where an inflammatory diathesis prevails. However, I never saw effects from them worth notice in this complaint, while I followed the common mode of proceeding; wherefore I gave preference to cephalics, as they are called, because they seemingly act upon the nerves in a different manner. Of this tribe we will instance rosemary, lavendar, and valerian; the latter of which I had more confidence in, because I had seen several with weak eyes get well while they were taking it; and all of them, no doubt, are stimulants, because they animate, by acting immediately upon the nervous system, without irritating, or occasioning inflammation. Simply considered, however, they are stimulants of an inferior order, without a sedative property; and seem not to be sufficiently animating to restore the nerves to their pristine state in a true palsy. The credit they have acquired was probably in spontaneous recoveries, where nervine cordials only were required.

Opium to be joined to aromatics.

required. In this inſtance they are proper remedies; but they will make quicker work, if joined with laudanum.

Volatile ſalts.

The volatile ſalts and ſpirits are ſtimulants, according to our ſenſe of the word, becauſe they revive the ſpirits when applied to the olfactory nerves; and when taken inwardly, they promote ſweat, inſtead of inflammation; but theſe things will hereafter be ſpoken of, and we ſhall therefore advert to irritants.

Irritants.

Celsus * recommended a practice, which I ſuppoſe had been in uſe before his time, of irritating the ſkin of the benumbed limb with nettles, or muſtard, till the part begins to look red †; which we ſhall hereafter conſider, in ſpeaking of topical applications to palſied limbs; at preſent we may obſerve, that this treatment, no doubt, occaſioned muſtard being

Nettles and muſtard,

* Lib. 2. cap. 27.

† Tincture of cantharides has been uſed for this purpoſe; and what it may do in local ſpurious palſies, I cannot tell. What is ſaid of other irritants in the true palſy, is applicable to this remedy.

given

given inwardly for the purpoſe of irritating, and it certainly does ſometimes irritate the primæ viæ; becauſe the powder, in large doſes, will now and then vomit, and open the bowels; and theſe effects may do ſome ſervice in this diſeaſe when ſeated in the ſtomach. But how often do we ſee the ſharpeſt preparations of it eaten in large quantities without any remarkable effect? And I am led to think, from what I have ſeen, that while we are trifling with this, we are neglecting more powerful remedies.

Bliſters, which are highly irritating, have been uſed upon ſomewhat ſimilar principles. They are edged tools, and ſeemingly ſhould never be employed in a true palſy. Bliſters.

CASE XVI.

A lady betwixt fifty and ſixty years of age was ſeized with an hemiplegia; nervine cordials, wine, &c. were given, and upon the arm, betwixt the elbow and the

wriſt, a bliſter was applied. But notwithſtanding the reſt of the body ſpontaneouſly recovered, this part remained uſeleſs as long as ſhe lived; and I have very lately ſeen a ſimilar inſtance in a boy, who appears, after the uſe of bliſters, to be rendered perfectly incurable. Indeed it ſeems to me, that by fretting they weaken the nerves; and, in true palſies, ſometimes leave them in a ſtate of debility unfavorable to a recovery, as happened in the above inſtances. Truly I am very fearful the free uſe of them has too often rendered the diſeaſe permanent, or killed the patient.

They are, however, ſometimes applied in this diſeaſe, apparently without either doing good or harm, the patient remaining in ſtatu quo. But the queſtion is, what might have happened had they not been employed? For my part, ſince I have known the difference betwixt true and ſpurious palſies, I cannot call to mind one inſtance in which their ſervice

was

was manifeſt in the palſy, in which we are reprobating their uſe; though I have ſeen very many, who, after recourſe has been had to them, have dragged on a miſerable life.

Great things, under various conjectural theories, have been ſaid in their favor; which perhaps have been ſupported by recoveries in recent or ſpurious palſies under their application; for ſpurious palſies are often relieved by their uſe. In the other we are to remember, that nature many times ſurmounts difficulties thrown in her way, that ſpontaneous recoveries frequently happen *, and that before the good effects of bliſters can be aſcertained, it muſt be proved that the amendment would not have been brought about, unleſs they had been uſed; and do not we in chronic palſies always find them uſeleſs?

* See next Caſe.

CASE XVII.

I know indeed Dr. Charleton * gives
" an inſtance, where a man, having
" cyder-cholic, loſt the uſe of his hand
" and arms; but in a couple of months
" by the uſe of the Bath waters, he re-
" gained the perfect action and ſtrengt
" of his arms; the muſcles of his fin-
" gers, however, not advancing equally
" in their recovery with thoſe of the
" arms, bliſters were applied to the
" wriſts;" by which (it was ſuppoſed)
thoſe parts were alſo reſtored to their
natural powers. But whoever calls to
mind how often Bath waters relieve pa-
ralytic affections, where bliſters have no
ſort of effect; that when diſeaſes of the
bowels, or other parts of the viſcera, which
occaſion palſies, are removed, the palſy
ceaſes; that they were removed in this
inſtance; and that when ſigns of recovery

* Efficacy of warm bathing in palſies, p. 76.

begin

begin to appear †, the patient in the end commonly gets well; we are inclined to conclude, that the whole reſtoration was owing to the waters alone, and that the uſe of the fingers would have returned, though the bliſters had not been applied; for have we not given ſome inſtances which ſeem to prove, that in the recovery of the office of the nerves in this complaint, if we are able to put the agent, by which they produce their effects, into regular motion again, it continues like the pendulum of a clock, and gradually increaſes in power to a greater or leſs degree of reſtoration? And I have very little doubt of a recovery, more or leſs perfect, whenever I ſee the patient move his fingers and toes regularly and voluntarily, provided nature is not interrupted in her work by irritating remedies.

† The Bath phyſicians and ſurgeons obſerve, that when patients are diſcharged *much better*, they very often continue to amend and gain ſtrength, till they are perfectly well.

A diſtinction, however, muſt be made betwixt the partial returns of motion which ſeem to be occaſioned by a ſudden ſtruggle of nature, and that which comes on gradually; the one being very imperfect, often affecting one or both limbs only of the ſame ſide, and little or no alteration happens after the firſt effort is over, the paralytic member remaining an ungovernable part of the body: whereas in the other, from the firſt ſigns of recovery, the fingers or toes (for inſtance) regularly ſhew their ſubſerviency to the command of the will, and by degrees often aſſume their wonted uſe.

On the contrary, we know it ſometimes happens, that there is not any remiſſion in the diſeaſe, the power which gives motion to the muſcles being intirely aboliſhed at the onſet, and incapable of being reſtored either by art or nature. Nor do I ſee how bliſters to the wriſts could be ſerviceable; for the tendons are only inſenſible inelaſtic pullies, and could not,

not, I think, be acted upon, so as to renew motion by blisters thus applied.

Mr. Hunter says, the paralysis of the urethra and acceleratores muscles is sometimes cured by blisters, and the internal use of cantharides *; but it must be observed, that these were manifestly paralytic affections, not of the true, but of the spurious kind; and the practice cannot hence be considered of general use in palsies. How often have we seen the Bath-waters succeed, more or less, in chronic palsies, when blisters and irritating remedies have failed? Which is evidence of their being destitute of properties necessary to accomplish a cure; and is it not therefore foreign to the purpose to make use of them?

Cantharides.

The internal use of cantharides has long been recommended in palsies, on a supposition of their being serviceable by their attenuating and irritating property: but I apprehend they would have been

* On Ven. Disease, p. 166.

more generally employed, in the great length of time they have been ſpoken of, had they been ſucceſsful. I have ſeveral times ſeen them have a fair trial, by being given till they brought on the ſtrangury; yet, in the preſent inſtance, I never ſaw any good effect ariſe from their uſe when taken by themſelves. In the man's caſe at Lichfield there is not any thing to be ſaid in their favor. They excoriated the urethra, but without increaſing nervous energy; and in the caſe mentioned in the firſt volume of the Memoirs of the Medical Society of London, the only ſymptoms of their action ſeemed to evince, that they had excoriated and inflamed the bladder; and if what we have ſaid is true, irritating and inflaming cannot poſſibly animate the nerves. Suppoſing them to irritate the nerves, where the will has loſt its command, I will be bold to aſſert, that ſpaſms, or more violent convulſions, will be the conſequence, if the nerves are capable of ſenſation; which,

which, in my opinion, is an irrefragable argument againſt all irritating remedies in this diſeaſe; ſo that they may do injury, in a true palſy, without a poſſibility of doing good.

On the other hand, it may be aſked, if irritating remedies do no good, in this inſtance, and ſedative ſtimulants cure this palſy, how comes it to paſs, that lead, which is a powerful ſedative, occaſions this diſeaſe in the extremities of thoſe, who either drink lead diſſolved in cyder, or who, working in lead mines, ſwallow the fumes of this mineral * ? Lead.

To which we may anſwer, that lead is of a cold nature †, without any reſtorative property, or animating warmth, which opium, and the remedies recommended, poſſeſs. Or ſuppoſe it is ſaid, have not we abundance of inſtances, which prove, that a ſolution of opium,

* It is well known the ſame holds good in many other metals.

† The extract of lead, added to cream, creates an extreme cold mixture.

applied

applied to bare nerves, brings on a palſy of the neighbouring muſcles? It may with equal truth be obſerved, that an over doſe of opium, given inwardly, brings on convulſions, and death; and yet we know that this drug, in a moderate quantity, both exhilarates the ſpirits, and appeaſes tumults in the brainular ſyſtem *; whence it appears to have an animating and ſedative property; and there can be no doubt, but, by invigorating and quieting, it relieves the diſordered ſtate of the nerves, which muſt neceſſarily happen in this diſeaſe; and we know from long uſe in the cure of external diſorders, where the parts want life and vigor, that the claſs of remedies recommended invigorates them, regulates the action of the nerves, and frequently reſtores them to their proper office †.

Opium, its effects.

* Read Jones on the conſtant effect of opium uſed internally in a moderate doſe. Chap. 4. p. 20.

Myſteries of opium revealed. He ſays he has known it to cure a palſy, p. 34.

† For inſtance, if the ſtiſticum is applied to a cold indolent

Again, it may be ſaid, did not the Baron Van Swieten * cure palſies with irritating remedies, by giving a drachm of the volatile ſalt of hartſhorn frequently in diſtilled lavender water, according to the theory of Boerhaave, who ſuppoſed, without proper limitations, obſtruction of morbific or viſcid lymph, to be always the cauſe of this diſeaſe, when it aroſe from any internal affection; and that attenuating ſalts of the acrid kind were neceſſary to accompliſh a cure? But, notwithſtanding the patient recovered, this account is no way ſatisfactory, as a precedent for general practice; becauſe it is not ſpecified whether the diſeaſe was a true, or a ſpurious palſy, on which much depends; for though this ſalt is

indolent ſwelling, when the cellular membrane is loaded with inactive lymph, it often ſets it at liberty, and occaſions it being abſorbed, ſeemingly by *animating* the nerves; for is there any other way that this alteration can be brought about, but by nervous excitement?

* Com. Sect. 1068.

a very

Volatile ſalts uſeful in ſpurious palſies.

a very proper remedy in ſome kinds of ſpurious palſies, as will hereafter be ſeen; yet it will appear it is not an appoſite remedy in diſeaſes on which we are treating.

But admitting this inſtance the Baron gives to be a true palſy, it is probable the reſtoration of health was owing to the other methods purſued at the ſame time; for he cleared the primæ viæ, for ſome days, "with aloes, ſagapenum, myrrh, "and galbanum," and afterwards gave an infuſion of ſaſſafraſs wood, rue, roſemary, and the like, which might contribute more than the ſalt to the amendment of the patient; for have not we lately had a plain inſtance *, where half an ounce of volatile ſalts was given in a morning faſting, diſſolved in water gruel in a paralyſis for three weeks together, without producing either good or evil? Becauſe, where the cure depends upon animating the nerves, we muſt look to

* Med. Soc. Lond. vol. 1. p. 364.

another

another part of the materia medica for assistance; what therefore may be the event of acquiring a habit of giving them in all kinds of paralytic affections without discrimination?

If cantharides taken inwardly ever assist, it must be in the spurious palsy; but, from what we have seen, we may doubt their efficacy; and certainly safer and more powerful deobstruents, according to the particular circumstances, may be chosen in their place.

Dr. Mead * recommended issues in this disease, in preference to blisters, from Hippocrates, who, he says, advised them to be made in eight places; but upon turning to the passage he refers to †, if I am not mistaken, he treats not of the palsy, but on diseases of the head in general from plethora, and advises drains being made by the cautery; "two about "the ears, two in the occiput, one on "each side the nose about the angles of Issues.

* Mon & Med. † De morb. lib. 2. sect. 12.

"the

" the eyes; and the veins (arteries) about " the ears were to be burned till their " pulsation ceased." And whenever a palsy arises from congestion, there cannot be any doubt about the propriety of making issues. We seldom, however, trust to issues alone, but have commonly recourse at the same time to other methods of unloading the vessels, &c.

CASE XVIII.

A gentleman of a full relaxed habit, about sixty years of age, became first indolent, afterwards dull and stupid, complained of a heaviness in his head; an hemiplegia had gradually made a considerable progress, nor could he get out his words properly. The pupil of each eye was much dilated, he could not see well, and his pulse was under sixty, and sluggish.

Supposing these symptoms to arise from a congestion of lymph in and about the brain,

brain, I ordered a volatile plaiſter to the whole head, a ſeton in the neck, a grain of quickſilver daily in ſtarch, and a draught compoſed of pepper mint water, ſagapenum, guaiacum, and æther twice a day.

The plaiſter occaſioned a large diſcharge of lymph from the head, the medicines purged him daily, the ſeton did its office very well, ſigns of amendment ſoon began to appear, and by a letter I received, I had the pleaſure of being informed he was ſtill much better, and had a proſpect of getting well; but being weary of medicine, and neglecting its uſe, the diſeaſe again gained ground, and fatuity is the conſequence.

CASE XIX.

A man about forty years of age was gradually ſeized with a giddineſs in his head, which abated and returned frequently; after ſome time he found his right arm become weak, and a palſy followed;

lowed; his legs alſo became almoſt uſeleſs; a paralyſis had taken place in the muſcles of his neck, and the pupil of each eye was greatly dilated.

Theſe ſymptoms gave me reaſon to ſuſpect an hydrocephalus, or a ſurcharge of lymph in the head; wherefore I ordered a doſe of calomel to be worked off with jalap two or three times at proper diſtances, and then a grain of quickſilver divided with ſtarch twice a day, interpoſing half an ounce of ſalts once a week; and a ſeton was made in his neck.

In ten days, or a fortnight, I ſaw him in a much better ſtate; he had taken twenty pills, and half an ounce of ſalts; but he aſcribed his amendment to the ſeton, and begged he might have an iſſue in each leg, which was complied with; and in no great length of time he perfectly recovered without farther trouble.

Some doubt, however, may ariſe, whether the whole cure can be attributed to the iſſues, notwithſtanding the patient had

had ſo high an opinion of their ſervice; for the quantity of quickſilver taken might render the lymphatic ſyſtem pervious, and by occaſioning abſorption, put an end to the diſorder. However, in paralytic affections, ariſing from a metaſtaſis upon the brain, or from ſwellings in the coats of the nerves, I think they may be uſeful, if made near to the affected part; and I ſuppoſe it is to the drain they make, that they are ſometimes uſeful to the curved ſpine. But, in a true palſy, they ſeemingly cannot afford relief; as unloading the nerves, where there is no morbid matter to be diſcharged, will not bring back nervous energy.

Bleeding is ſeldom indicated in the true palſy; for by weakening nervous energy, I apprehend it would do harm; but in a ſpurious palſy, when inflammatory ſymptoms occur, blood may be taken away with a proſpect of advantage *.

Bleeding, when neceſſary.

* Sanguinis detractio vel occidit vel liberat. Celſus.

Electri-city.

Electricity has been thought capable of relieving this malady; medical electricians have entertained great hopes of it; but they have omitted to diſtinguiſh the paralytic caſes, in which it is moſt likely to be ſucceſsful. Knowing that it powerfully promotes the circulation of all ſorts of fluids in the body, and that the nerves are conductors of the electrical aura, I was deſirous of giving it a trial; but though I have uſed it, and known it uſed many times, I never yet perceived any benefit to reſult from it in the true palſy. In this inſtance there is ſomething more to be done, than to promote a motion in the fluids paſſing through the nerves; they muſt be aſſiſted, as we have obſerved, with remedies capable of renewing thoſe powers, which enable them to perform their own office; otherwiſe, putting the fluids into motion for a time, will be followed with the ſame conſequences as winding up a watch, when the main ſpring is injured or broken.

The

The Baron Van Swieten has copied an inſtance from Jallabert *, " where the " right arm, as he ſays, had been paralytic " fourteen years. After the cure had " been attempted in vain by other reme- " dies, and the inſenſibility of the part " affected, its livid colour, and waſting, " afforded a very unfavourable prognoſis; " yet, after ten days, the ſenſe of feeling " returned to the part, it increaſed in its " bulk, and was reſtored to its natural " colour. And by the continual uſe of " electrifying, the muſcles, which before " were paralytic, gradually recovered " their ſtrength!" which is truly a mar- vellous caſe, and I think we ſhall never ſee the like again.

Even the modern writers on medical electricity go great lengths, but not quite ſo far as Jallabert; they are content with telling us, for inſtance, that electricity has cured the gutta ſerena, and hence

* Comment. 1068.

conclude it to be a powerful antiparalytic; while others, from trials, have no faith in it, and think, in ſome inſtances, it has miſchievous effects.

Now both ſides may be right, in ſome degree, under different circumſtances. In a true palſy, I believe, it will do no good; if improperly uſed, it may do miſchief; but in a ſpurious palſy, where rendering the veſſels pervious, is the main thing required from art, it may do ſervice, where the fluids are capable of being put into motion; whereas, in confirmed obſtructions, may not the electric aura paſs round or through them without occaſioning any alteration? I can eaſily believe it to have cured a gutta ſerena, becauſe it has been repeatedly cured by the deobſtruent property of ſmall doſes of mercury, when owing to ſimple obſtruction ſucceeding inflammation, &c. whereas when the diſeaſe ariſes from a defect of nervous power, neither mercury nor electricity are uſeful. When a ſtream of the

electric

electric aura is made to pass through a particular part, or even through the whole body, it is very well known it seemingly produces no sort of mischief; but when an electric shock is given in the true palsy, it may do harm by increasing the derangement, which has already taken place. We see accidental concussions of the brain or nerves sometimes occasion death; and what reason is there to expect relief from concussion of the brain, occasioned by an electrical machine?

Experimental philosophers tell us, that lightning and the electric spark are the same thing, because they produce similar effects: All know the former sometimes kills, and when less violent, it has brought on a palsy *. In like manner an electrical shock has been known to kill small animals; and an increased palsy has manifestly been the consequence of its application †. When Dr. Franklin complain-

* Mem. Med. Soc. vol 2. p. 226.

† Cavallo's Complete Treatise, p. 86.

ed of want of ſucceſs in palſies * with this remedy, it is ſaid the ſhocks he uſed were too violent; and ſtrong ſhocks I believe are now laid aſide. Nor have I any idea that gentle ſhocks or ſparks, by agitating the nerves in the true palſy, do any good: I think they are more likely to be injurious, though perhaps in the ſpurious palſy advantage may ariſe from their uſe †.

It has been ſaid to relieve the rheumatiſm; and it probably may ſometimes be ſerviceable in paralytic affections ariſing from that complaint: But were a palſy to be brought on by the *nervous rheumatiſm* ‡, opium, the ſedative gums, camphor, &c. would be better remedies; and even in the paralyſis ariſing from the dregs of the inflammatory rheumatiſm, it remains yet to be determined, how far it

* Cavallo on Medical Electricity, p. 15, or his Complete Treatiſe.

† See a ſpurious palſy cured by electricity. Lond. Med. Journ. vol. 5.

‡ Med. Surg. vol. 1. p. 414.

ought

ought to have preference to thoſe remedies of known efficacy, and with whoſe virtues we are well acquainted.

Bath waters.

More dependance is to be had on the Bath waters, which have ſo long been celebrated for the cure of this complaint, when it has withſtood the power of common remedies, and become chronical; nor is the objection Dr. Mead * raiſed againſt them able to ſtand the teſt of inquiry; for the Bath phyſicians have ſhewn †, that the calling back, as it were, of the apoplexy is not their uſual effects. Indeed it appears to me, that the doctor himſelf confeſſes the utility of theſe waters in the cure of the palſy; for he ſays "their chief virtue conſiſts in a certain "mineral heat, whereby they warm and "cheriſh the ſtomach and inteſtines;" and if to this we add their power of removing obſtructions of the viſcera, the

* Mon. Med.

† Charlton's Inquiry, &c. and the Narrative of the Efficacy of the Bath waters.

ſeat often of the diſeaſe, there will but little doubt remain of their having properties adapted to the cure of this complaint; and accordingly we meet with ſeveral caſes, in true palſies, in which they are ſucceſsful.

Nevertheleſs, from the accounts publiſhed by Dr. Charleton in 1770, and by the Bath phyſicians in 1787, it appears that the greateſt number of invalids of this kind, who preſent themſelves for relief, are affected with ſpurious palſies*; and it is reaſonable to ſuppoſe, that warm bathing is well adapted to the cure of paralytic affections ariſing from cold and damp, ſudden check of perſpiration, rheumatiſm, and whatever occaſions obſtruction, and theſe ſprings are more valuable as they ſometimes relieve both kinds of

* Dr. Charleton gives an account of twenty-ſix caſes, nineteen of which, at leaſt, were ſpurious, and ſeven true palſies. In the account from the Bath phyſicians and ſurgeons, out of fifty-two caſes, ſixteen were true, and thirty-ſix ſpurious palſies.

this

this complaint, when they become too confirmed and obſtinate for common remedies.

People ſeldom preſent themſelves for relief in chronic palſies in private practice; for if the firſt efforts, to afford a cure, are not ſucceſsful, the caſe is commonly given up, unleſs the patient can get to Bath; and I have had but few opportunities of trying the effect of opium in this ſtate. I have noticed two, one of which was much amended, and in the other we had perfect ſucceſs; yet, I am fearful there are alterations to be brought about in the cure of chronic palſies, which opium by itſelf is often incapable of accompliſhing; for though it may animate the nerves, &c. it may not have the power of removing the impediments to motion, which is the conſequence of long continued inaction.

Perhaps an union of opium and Bath waters might be more powerful than either alone; but it muſt be time and

expe-

experience that can determine whether this conjecture is well founded or not. We have given one or two cases * above, which seem to favour such kind of practice.

* See note p. 109.

PART

PART II. SECTION VI.

On topical applications in paralytic affections.

TOPICAL remedies are chiefly uſeful in local palſies; and in theſe their ſervices are ſometimes eminent. We may remember the Baron Van Swieten *, ſeveral times, as he ſays, happily cured a palſy of the arms, ſucceeding the cholic of Poictou, by friction, aromatic plaſters, &c. applied to the belly only; becauſe the diſeaſe had its origin in the nerves of the abdomen. This is the *pareſis é cholica*, ſo well known, and thoſe muſt have made but little obſervation, who are not aware, that various diſeaſes of the abdominal viſcera affect the limbs; and that by removing this complaint a cure is accompliſhed †, but this we apprehend is ſooner and

* Comment. Sect. 1070, ſub finem.

† See Med. Surg. Sympathy of the nerves.

better

better effected by the aſſiſtance of the treatment we have ſpoken of, than by external applications alone.

CASE XX.

A paralyſis of the legs was brought on by the rheumatiſm fixing upon the abdomen, and its contents; and was cured by a few doſes of calomel, and pills compoſed of gum ſagapenum, gum guaiacum, and opium, together with an anodyne lotion to the affected part; and were any other local palſy to happen, topical remedies might be ſufficient.

But when the diſeaſe is ſeated in the head, what is to be expected from topical applications to the extremities? The man whoſe caſe we have mentioned in part 1ſt, ſection 6th, caſe the ſixth, had an incurable hemiplegia from the cicatrix which followed the lacerated wounds in the cineritious part of his brain. Living in the neighbourhood of a gentleman, who wiſhed to alleviate the ſufferings of mankind,

kind, and who kept a diſpenſary for this purpoſe, every external application, that could be thought on, was applied to the paralytic parts; he was frequently electrified till his hands and fingers became red, and various internal remedies were given; but all without benefit.

Here we are certain to what cauſe the hemiplegia was owing; and of the improbability of giving relief to the paralytic part, by topical remedies applied at a diſtance. And will not the event be the ſame, when the diſeaſe is ſeated in the head, from a defect in a portion of the brain, as deſcribed by Morgagni in his diſſections? In the palſy from lead, we never applied embrocations to the limbs, being at ſo great a diſtance from the ſeat of the diſeaſe; and yet the patient got well, becauſe the original cauſe was ſubdued.

Celſus * adviſed to irritate the ſkin † of the benumbed part with nettles, or by

Irritating topics.

* Lib. 3, cap. 27.

† Sic, ut ubi rubere cæperit corpus.

keeping

keeping muſtard upon it till the part began to look red, when they may be removed; and this practice, without being limited, has been upon his authority ever ſince continued, to reſtore ſenſibility and motion, to the affected limb. We are to remember, however, that an increaſe of ſenſibility is ſeldom wanted.* Nettles have been applied * till they produced a burning heat and ſevere pain, without any advantage. I never have been able to diſcover that the application of muſtard did any good in a true palſy. In this caſe, I believe, the green ointment and ſtrong ſpirit of vitriol †, have not been more ſerviceable: Nor do I ever remember to have ſeen any kind of ſervice from making a paralytic part red, by irritating topics, in the true palſy. If the diſeaſe be ſeated in the head, how can it be expected, for the reaſons juſt given? This practice ſeems to have been taken up at firſt ſight, and ſince

* Home's Clin. Exper. p. 245, Exper. 8.

† Med. Monit. ſect. 2.

conti-

continued without ever being properly examined; and we will beg leave to inquire what end is anſwered by making the part red in this complaint, when owing to a defect in the ſubſtance of the brain.

Redneſs, every body knows, is owing to blood being invited into the lymphatics, which before did not carry red blood; but it muſt be remembered, that blood in a natural ſtate never enters the brain or nerves; and were it any way to be forced into them, it would certainly do injury. It may be ſaid, however, that it brings warmth into the part; but paralytic limbs are often very warm, and yet it is no ſign of recovery; for they do not oftener recover than thoſe that are otherwiſe. The old man, who endured a palſy in one of his arms for more than fifty years, had always a regular warmth and a regular pulſe in it; and when I ſaw him, it was in a ſtate of perſpiration, and yet emaciated. Nor does warmth, when artificially applied, make any alteration for the bet-

ter,

ter *, for we ſee, when warm fomentations, or ſimple water made hot, are applied in a true palſy, they anſwer no good end. Or were we to ſuppoſe that they brought a greater flow of nervous fluid into the part, what can be expected from it, when the nerves themſelves are incapable of conducting it to its proper office? Electrical experiments occaſion redneſs in a palſied limb; and no doubt move the nervous fluid through the nerves; yet they prove abortive, for the reaſons already given. Beſides, if irritating was to bring a flux which overloaded the nerves, would it not tend to interrupt their office? If inflammation was to be brought on, inſtead of redneſs, it would be contrary to nature, who I believe never accompliſhes her work by preternatural means †. Be-

* The reader will pleaſe to keep his eye in this reading on the true palſy.

† It is ſaid the immediate union of divided parts, is accompliſhed by inflammation. We apprehend it is owing to another cauſe, to be ſpoken of in the third volume of Med. Surgery.

ſides

ſides inflammation always leaves the part more or leſs weak, and thus leſſens nervous energy †.

To apply topics, in paralytic affections, with propriety, the ſpecies ſhould be firſt diſtinguiſhed; for it cannot be ſuppoſed that the ſame application is proper in each of them, friction with a warm hand, excepted, and this may be aſſiſted with ſuitable external remedies; nor is it any way difficult to diſtinguiſh betwixt a true and a ſpurious palſy, by the rules above laid down.

If the head is quite clear in the true palſy, it is reaſonable to ſuppoſe, that it is not the ſeat of the diſeaſe; and that being unaffected, topics, to the affected part, may be uſed with ſome proſpect of ſucceſs; but I am perſuaded different kinds of remedies muſt be choſen to thoſe in common uſe. The limbs may be wrapped in powders compoſed of bark, myrrh, gum benzoin, camphor, opium, &c. or plaſters,

† See Caſe 16. Part 2. Sect. 5.

or fumigations made of the ſame kind of ingredients, may be applied for the purpoſe of animating the nerves. But when the diſorder has been of long continuance, and ſome kind of ſpiſſitude in the juices may be ſuppoſed to be formed; the tincture of balſam of Peru, made with the volatile aromatic ſpirit * (inſtead of ſpirit of wine,) and laudanum, may prove, as I have experienced, an uſeful litus.

In the ſpurious palſy, attenuating remedies ſhould make part of the application; becauſe the lymph, in the affected part, ſometimes becomes viſcid, and deobſtruents are required to render the veſſels pervious, and to promote abſorption. Bliſters, in this inſtance, by their attenuating property, do ſervice; nor is there danger of their doing miſchief, becauſe the nerves themſelves are not diſeaſed. In the rheumatic paralyſis, for example, this treatment is proper; but

* Spt. Ammoniæ, camp. nov. phar.

it

it muſt be obſerved, " in a rheumatic " palſy, attended with a numbneſs of " the elbow, with ſhooting pains that " extended to the end of the fingers, the " hand and arm, cold and uſeleſs, and " the fingers contracted; that after ſome " months trial of the Bath waters, and " unguents compoſed of camphor, opium, " and neats foot oil, the patient was " cured by a litus compoſed of Bates's " anodyne balſam, and Thebaic tincture, " equal parts; the fingers, which had " obſtinately reſiſted whatever means had " been uſed, gave way, after two or three " embrocations, and the patient was diſ- " charged the hoſpital cured *."

Pain ſometimes ſeizes the parts about the head of the os humeri, or os femoris, and a palſy in the arm or leg is the conſequence; the uſeleſs member not uncom-

* Narrative of the effects of Bath waters by the phyſicians, &c. at Bath, p. 48. It is worth while to contraſt this practice with that of uſing irritating topics.

monly hanging looſe from the body like a threſher's flail. The cauſe of pain is, I think, no doubt, the cauſe of the palſy; and this probably ariſes from a diſtenſion or obſtruction of the nerves ſeated in the ligaments and membranes about the joint. It reſembles a ſciatica, but more violent in its effects, though it will now and then give way to a ſimilar kind of treatment.

The remedies I have found moſt effectual in theſe caſes, after purging with calomel, &c. are ſmall doſes of divided quickſilver, opium, and ſpirit of turpentine, with the volatile plaſter I have elſewhere ſpoken of; afterwards a plaſter compoſed of pitch, opium, camphor, crude ſal ammoniac, eſſential oils, &c. applied to the affected part, will often do good ſervice; or ſometimes a lotion of Barbadoes tar, and the volatile aromatic ſpirit, or the volatile ſpirit of ſal ammoniac, ſhould be uſed, where we ſuſpect, from length of time, &c. attenuants are required; for I know very well this bitumen,

men, beſides other properties, is a very powerful diſſolver of thickened lymph *, and I have accordingly uſed it, under the preſent circumſtances, with conſiderable advantage; nor do we neglect both external and internal tonics, when ſtrengthening the part becomes neceſſary.

I have very frequently ſeen this diſeaſe in children, without pain, who generally get well; but much time is often required for the purpoſe, though I have in my eye one, or I believe two caſes of this ſort, where medicines, the Bath waters upon the ſpot, and all the applications that could be thought on, have not availed.

Some writers ſpeak of the cold bath in the cure of this complaint, but I believe it to be an edged tool, that ſhould be handled with caution; for I very well

* I have known it cure the tumors ariſing from viſcid lymph in horſes legs, called wind galls; and whoever has ſeen them opened muſt know the glutinous lymph they contain requires a moſt powerful attenuant to diſſolve it, &c.

remember a middle aged man, to whom it had done irreparable miſchief.

Were a glowing warmth to follow its uſe, I ſhould expect it to do ſervice; but if coldneſs enſues, injury would moſt probably be the conſequence. It may chiefly have been employed in the convaleſcent ſtate of the ſpurious kind of this malady; for when the viſcid fluids are attenuated, and ſet at liberty, it may complete the recovery, by ſtrengthening the conſtitution. But ſhould an amendment any way ſhew itſelf in a true palſy, I ſee no reaſon for employing ſo hazardous a remedy.

The above hints may readily be extended by men of ſcience to all that is connected with the ſubject; and, I truſt, it will be found that I have not built on the ſandy foundation of ſpeculative theory, but on the rock of plain ſimple facts.

RECAPI-

RECAPITULATION.

A ſhort recapitulation of that part of the above doctrine, which relates to apoplexy and coma, to bring the compariſon betwixt them into a nearer point of view.

THE nervous apoplexy is a diſeaſe *ſui generis*, which more or leſs injures the principles of life *, ariſing, in appearance, from an apoplectic diatheſis in the brainular ſyſtem.

On the contrary, the diſeaſe we call a *coma (ſomnolentum)* is occaſioned by a diſtention of the brain, from a congeſtion either of blood, lymph, or ſerum, not yet extravaſated; which may either be owing to an imperviouſneſs in the brain itſelf, or to the fluids which belong to it, becoming incapable of paſſing through the veſſels of this part. When further ad-

* Trallian.

vanced, we ſometimes meet with extravaſated blood and ſerum, from a rupture of the veſſels; but this, inſtead of putting a period to life, is only the conſequence of the cauſe of death, and upon enquiry will be found not to be apoplectic or a ſudden affection, but a diſeaſed ſtate of the brain, or the veſſels connected with it, or more frequently both together*.

* Among many other inſtances to be met with in the ſame author, we will give an abſtract of a caſe in point, from the ſixtieth letter of Morgagni, article the fourth. "A man rather fat, was ſeized a "third time with an apoplexy, and died. The veſ- "ſels about the head were turgid. Upon opening "the ſcull, a conſiderable quantity of black blood "flowed out from the infundibulum. It had alſo "diſtended the veſſels paſſing through the pia mater, "which inveſts the cerebrum and cerebellum. In "the middle of the left hemiſphere, a ſmall quanti- "ty of blood was extravaſated, and alſo a great "quantity in all the ventricles, &c. which were laſ- "cerated and *corrupted*, but without any diſagree- "able ſmell." And can it be poſſible to heſitate a moment, in deciding whether death was occaſioned by the extravaſated blood, or the rotten ſtate of the brain?

Nor

Nor is it material whether this was owing to the tenderneſs, or oſſification of the arteries, or other parts within the ſcull, as Morgagni has deſcribed, becauſe unfortunately they are both mortal affections.

The milder ſpecies of nervous apoplexy we have ſeen ſometimes admits of a cure, and the coma, while the juices are only obſtructed and accumulated, before extravaſation happens, will alſo ſometimes give way to evacuation. But if the vehement apoplexy takes place, or a conſiderable extravaſation happens, what can be expected from art?

We alſo hope, that the diſtinction betwixt true and ſpurious palſies will not be leſs uſeful; nor can we in our opinion, impreſs theſe diſtinctions too powerfully upon the mind of thoſe who are drawing the outlines of future practice, becauſe the proper treatment ſeems to depend upon their being known.

Poſt-

POSTSCRIPT.

Referring to page 38 of the foregoing Commentary.

On an Apoplectic Epilepsy.

A Healthful woman, about thirty years of age, near the full period of geſtation, was ſeized with ſymptoms that partook both of apoplexy and epilepſy. She fell down ſuddenly, inſtantly became inſenſible to all that paſſed, and a ſtertor enſued, accompanied with a hard vibrating pulſe, and violent convulſions. The convulſions returned periodically, and the midwife, who was called to her aſſiſtance, finding a natural preſentation of the child, was for ſome time in expectation of a delivery happening; but being diſappointed, my aſſiſtance was deſired. Nor had I been in the houſe a quarter of an hour before the fœtus was expelled during a ſevere convulſion.

The irritating cauſe being removed, I expected ſome mitigation of the ſymptoms would follow, but they continued without

without abatement, and I therefore gave her thirty drops of laudanum. Next morning I ſaw her again; the inſenſibility, ſtertor, and convulſions ſtill remained. Wherefore, after a clyſter, which had a proper effect, I ordered twenty drops of laudanum to be given every ten or twelve hours, till I ſaw her again, or till the ſymptoms abated. At the end of the third day we had manifeſtly gained advantage over the diſeaſe, and though we leſſened the doſe of laudanum, yet in four or five days we thought ourſelves ſecure of a recovery, and it accordingly happened.

This was many years ſince, and ſeemingly ſupports the doctrine we have advanced. I well remember it was the ſpaſms which led me to the uſe of opium. The theory I had imbibed at that time concerning apoplexies, and the chaos in which the ſubject was involved, prevented me from extending its uſe to the cure of that complaint; and after all, it is hard

to

to ſay what ſhare it had in the recovery of this patient; becauſe the change that women undergo after delivery, naturally removes the irritability they poſſeſs in parturition, as we have already explained in a treatiſe on child-bed fevers. There is reaſon, however, to think opium did ſervice in this inſtance, becauſe I apprehend it is never an inactive remedy; and if it did not do ſervice, it would probably have done harm. But of all theſe things the reader will judge for himſelf, and accept the well-meant intention of the author, in laying before him the facts which have come to his knowledge.

The following caſes happened ſince this book went to preſs.

A MASON 55 years of age had the appearance of being convulſed in the face, a twitching of the right arm, and a weakneſs of the eye of the ſame ſide followed; but theſe ſymptoms being of ſhort continuance, they were diſregarded.

A few

A few days afterwards I ſaw this man by accident, at which time he complained of an oppreſſion at his ſtomach, and upon his lungs; and though I told him what ought to be done, he ſtill declined medical advice. However, in leſs than a week I was deſired to ſee him, an hemiplegia having come on, with a violent pain in his head; he had a ſmall degree of fever upon him, but his pulſe was rather weak than ſtrong, and not more than an hundred ſtrokes in a minute.

He was immediately purged with an infuſion of ſena and manna, corrected with the mild ſpirit of vitriol, after which the ſpiritus mindereri was given at proper diſtances for the ſpace of twelve hours; but though it made him perſpire, his diſeaſe remained in *ſtatu quo*. Upon this, a ſcruple of Dover's powder was given every five or ſix hours for two days together, in which time his leg and arm ſhewed great ſigns of

reco-

recovery; but notwithſtanding he ſlept moſtly while he was taking this medicine, the pain in his head ſtill continued violent; for which reaſon a volatile ſweating plaſter * was applied to the whole head with deſirable effect. His bowels were kept properly open, and he took ten drops of laudanum, with a ſcruple of valerian in valerian tea, three times a day for about a fortnight, in which time the pain in his head nearly left him; he has acquired a tolerable uſe of his limbs, and has every appearance of being well in a ſhort time.

Some time before this happened, I was called to a man who was ſeized with an hemiplegia, accompanied with great pain in his head. Before I ſaw him a bliſter had been applied to the back according to common practice, and death followed the next day but one. Now, though it is very difficult to determine what effect

* Med. Surgery, vol. 1. p. 411.

the

the bliſter had in this caſe; yet this is certain, if the practice under which the one man recovered was right, the other in a true palſy muſt be wrong.

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ERRATA.

Page 32, line 7, for *it it*, read it is. P. 83, note ; for *dinturnan*, read diuturnam. P. 98, l. 6, *in every inſtance*, read in general. P. 150, l. the laſt, for *pullies*, read cords. P. 170, note; for page 109, read 103. P. 176, note, after the word reading, add a comma. P. 181, l. 9, for *geneally*, read generally. P. 184, for *matre* read mater.

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