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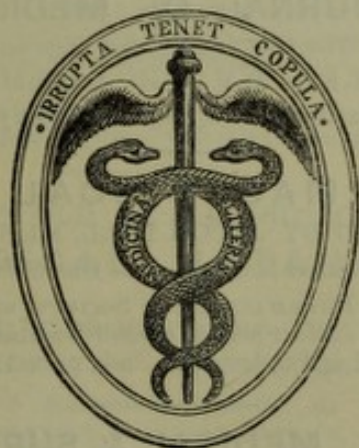
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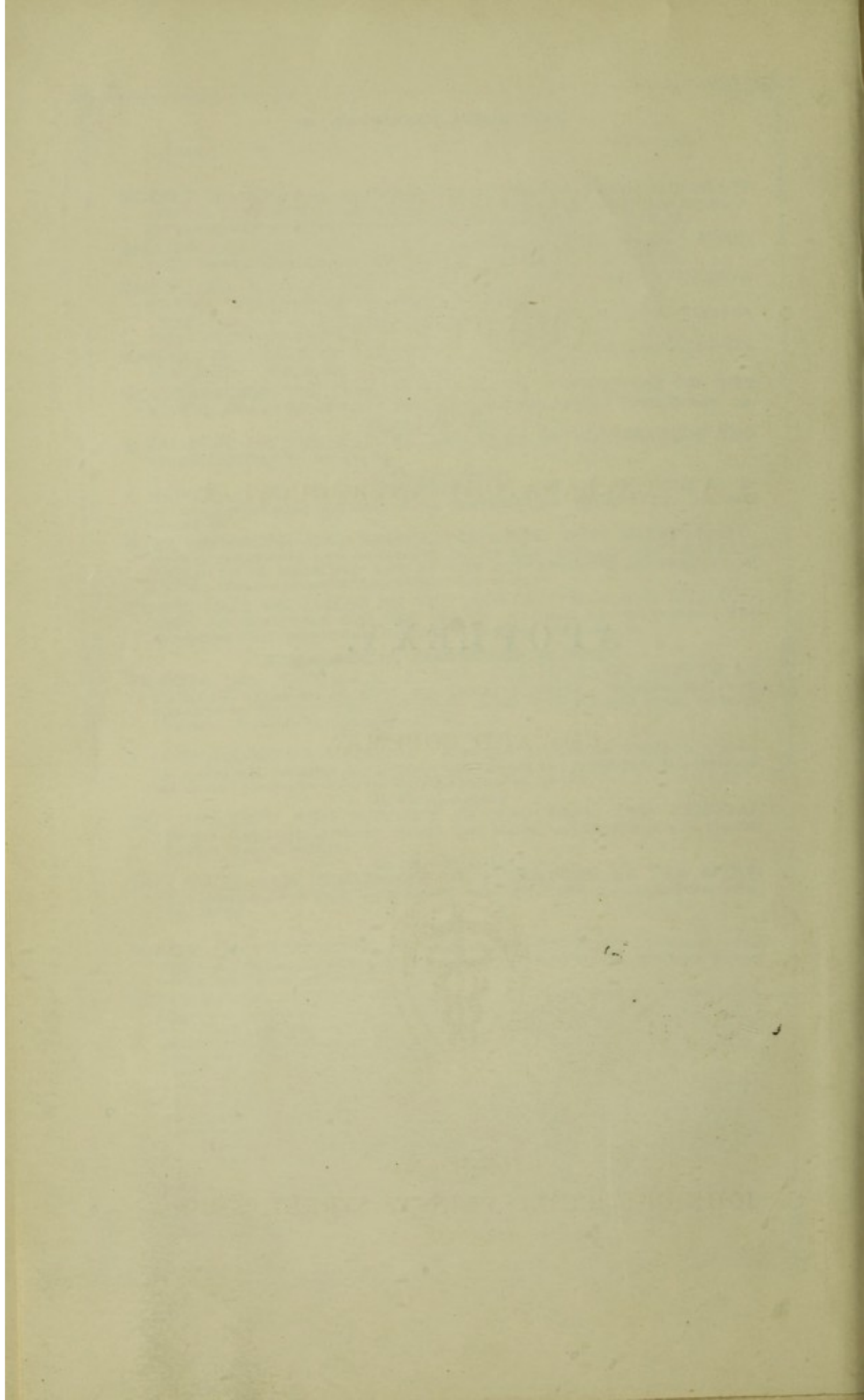
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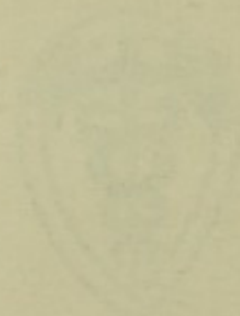
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12. Apoplexy from severe pains, headaches, colic, worms, the stone, wounds, punctures, and surgical operations.
13. Apoplexy from pregnancy, or occurring at the time of, or soon after labour.
14. Apoplexy from blows, falls, muscular efforts.
15. Apoplexy from cold.
16. Apoplexy from coitus or masturbation.
17. Apoplexy from suppressed evacuations, metastasis, and from eruptive diseases.
18. Febrile apoplexy.
19. Apoplexy from mephitic gases and narcotic poisons.
20. Apoplexy from strangulation.

Apoplexy has also occurred in the advanced stages of constitutional syphilis, as mentioned by Dr. Budd, in the Medical Gazette, vol. xxx. p. 357.

I believe each of the above divisions is exemplified by cases in the following collection, and the table affords a good view of the many different causes which are capable of producing the same general apparent effects.

From an analysis of the following cases, we find that of the 197 in which the age of the patient is given,

20	occurred	under	20	years	of	age.
30	-	-	-	from	20	to 30
31	-	-	-	-	30	- 40
31	-	-	-	-	40	- 50
25	-	-	-	-	50	- 60
30	-	-	-	-	60	- 70
25	-	-	-	-	70	- 80
5	-	-	-	-	80	and upwards.

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The table shows that all ages are liable to attacks of apoplexy; and that there is less variation in the liability of different ages than is usually imagined; there being a slight preponderance in favour of the disease between the ages of 30 and 50, and a somewhat greater immunity between 50 and 60. The difference, however, is altogether small, and may be explained by the great number of causes capable of producing apoplexy; one or other of which may be brought into action at almost any period of life. Particular causes may prevail at particular ages, but taking them generally, they are scarcely more prevalent at one time of life than at another.*

With regard to the liability of the sexes there is more difference; there being in 250 cases, 170 males and 80 females; or a proportion of males to females attacked with apoplexy of $2\frac{1}{2}$ to 1. From a consideration of the causes of the disease, this result might be expected, as there are many to which males are more exposed than females, and but few to which the latter are more obnoxious than men.

The morbid appearances found in persons who have died of apoplexy are exceedingly diversified, and by no means favour the idea that fulness of blood or rupture of vessel is always the cause of death. The number of deaths in which the *post*

* If we take into account the circumstance of there being a *larger number of persons living* at the earlier than at the later ages, the proportion of cases occurring in advanced life will appear somewhat greater.

mortem appearances are recorded is 156, and in 81 only was there extravasation of blood in the brain. In 10 cases there was found no diseased appearance of the brain at all, and in the remaining 65, the morbid appearances were, hypertrophy of the heart, disease of the aorta, softening of the brain, effusion of serum into the ventricles, or between the membranes, congestion of vessels in the brain, hydatids in the brain, inflammation of the brain, ossified arteries, abscess of the brain, diseased kidneys, brain hardened, cerebral vessels varicose, tubercle in the cerebellum, inflamed stomach, indurated liver, inflammation and ulceration of the small intestines, tumour in the brain.

The mortality of apoplexy is fearfully great, and proves either that the proximate causes of this disease are beyond the reach of art, or that the measures usually adopted as remedies are inapplicable, inefficient, or prejudicial. Of the whole number of cases recorded (250), only 68 recovered; 7 partially recovered, and 175 died; a proportion of deaths to recoveries of $2\frac{1}{3}$ to one. Is it not a most interesting and important question to determine whether this dreadful fatality can or cannot be lessened by the power of medical science? It has before been remarked that the treatment of apoplexy has hitherto been based upon one general principle; I would seriously inquire what is there in the result of such general principle of treatment to encourage a perseverance in it? Could things be worse under any other plan of treatment, or would the mortality be greater without any treatment at all? Surely there is, under such circumstances as these, a complete justification for leaving the well-beaten track that has hitherto been trodden with so little satisfaction, and endeavouring to find out a path that might lead us to a more encouraging prospect, and afford us some consolation for the pains we may have taken to discover it. But it may be said, the present plan of treatment has the sanction of all ages, and perhaps its failure is owing to the incurable nature of the disease, rather than to an improper use of means to relieve it. Truly, I fear, we can

never expect to avert the danger to life from apoplexy to any very considerable degree, but we ought not to consider it necessarily fatal; there is danger in so considering any disease that we are called upon to treat; and surely the simple fact of there having been 68 recoveries is sufficient, not only to prove that the disease may be cured, but also to encourage us to hope that by diligent and patient study, we may be granted the means of rendering less formidable this dire scourge of humanity.

If we carefully review the effects of apoplexy, as displayed by examination after death, we shall find but few of the diseased conditions so discovered, that would induce us, from analogy, to treat them by reducing the vital power of the constitution; there are some, as plethora, inflammation of the brain, congestion of cerebral vessels, hypertrophy of the heart, which seem to indicate the propriety of bleeding and general antiphlogistic treatment; in other cases there was no trace of disease in the brain, and we should endeavour in vain to cure such patients, if we did not seek for some other source of the disease, and apply our remedies accordingly. How can one general remedy prove beneficial under such various circumstances, and how can we wonder that little success is met with where such an unscientific mode of treatment is adopted?

In order to improve our practice in the management of this serious disease, the following appear to be the principal objects:—

1. To examine carefully the results of the present most general plan of treatment, that we may see what encouragement it affords for perseverance in its employment.

2. To determine whether there are signs that can be depended upon for enabling us to discover, at the time of an attack, which of the numerous causes of the disease has produced it; and if so, to define them.

3. To compare the different plans of treatment that have been pursued, and to judge of their comparative value by the result.

4. To treat this disease upon the same scientific principles as others, and not blindly to follow an empirical method, having little to recommend it except its antiquity and universality.

The universal *remedy*, as it is called, for apoplexy is blood-letting; at least so generally has it been employed, that of 155 cases in which the treatment is specified, 129 were bled, and only 26 were not: of the 129 who were bled, 51 recovered and 78 died—the cures being 1 in $2\frac{1}{2}$, the deaths 1 in $1\frac{2}{3}$,—of the 26 who were not bled, 18 were cured and 8 died, the proportion of cures being 1 in $1\frac{1}{2}$, and of deaths 1 in $3\frac{1}{4}$. But the mortality varies a good deal according to the particular method in which bloodletting was performed. In 2 cases the temporal artery was opened, both died. In 11 cases, cupping only was employed; 6 were cured and 5 died. Fourteen were treated by leeching; 4 cured, 10 died. Seventeen were bled in the foot, a plan strongly recommended by M. Portal; of which 13 were cured, and 4 died. Eighty-five were bled generally and copiously, of which number 28 recovered and 57 died; that is to say, two in every three cases terminated fatally. If we subtract the number of cases treated by bleeding in the foot, a plan of bleeding mild in its operation, and acting, probably, more on the principle of derivation than of materially lessening the quantity of blood in the system, we shall find that of 112 cases, 38 recovered and 74 died; reducing the proportion of cures to about 1 in 3, and increasing the proportion of deaths to 1 in $1\frac{1}{2}$.

From these facts it appears, that bleeding, generally speaking, is so ineffectual a means of preventing the fatal termination of apoplexy, that it scarcely deserves the name of a *remedy* for this disease. That where the temporal artery is opened the case terminates fatally; but as there are only two cases reported in which this method was exclusively employed, there are not sufficient data for establishing the universal fatality of this mode of treatment; although it may be fair to conjecture, that it is by no means desirable to abstract arterial blood from

the brain. That bleeding in the foot was the most successful mode of abstracting blood. That the treatment without loss of blood was attended with the most success; and that the mortality of the disease increased in proportion to the extent to which bleeding was carried; the more copious the loss of blood, the more fatal the disease.

It would seem therefore, from an examination of its statistical results, that there is but little encouragement for pursuing the usual much recommended plan of treating apoplexy by bleeding. Let us in the next place endeavour to ascertain whether argument and experience lead us to the same discouraging views with respect to bleeding.

The principal argument in favour of blood-letting in apoplexy is founded upon the supposition that the disease always arises from fulness of blood in the brain, causing pressure either from distension of vessels or extravasation. It is freely admitted by almost all writers on apoplexy, that patients who are the subjects of attack are frequently in a state in which loss of blood is contraindicated, and that we should "anxiously avoid it" were it not for this supposed fulness in the head. Now we have seen that this plethoric state of brain is only one of many causes of apoplexy; and, although we may admit the validity of the argument in favour of depletion, where there is distension of vessels from fulness of blood or sthenic activity of circulation in the brain, it will not apply to a great proportion of the other morbid conditions associated with apoplectic symptoms. Neither do I think it can be fairly admitted with reference to cases where rupture and consequent extravasation of blood has already taken place; the mischief is done, the blood is effused, the system has received a great shock; bleeding will not remove the extravasated blood. "But it may prevent further extravasation by lessening the impetus of blood to the brain." But has it this effect? Do we not generally read that "during the bleeding the pulse rose and became more free?" and may there not be some truth in the hypothesis that extravasation is promoted, rather than coun-

teracted, by the greater thinness of the blood, and its diminished tendency to coagulate, induced by large bleedings? In the next place, let us consider what are the objections to the practice; the greatest is its abuse, it being used indiscriminately in almost every case of apoplexy, without reference to the great variety of diseased conditions upon which the apoplectic symptoms depend. I have stated my opinion as to its questionable utility in cases where extravasation has already taken place, and should certainly never advise it in such cases, until the system has somewhat rallied from the immediate shock of the attack; before this, it seems to me impossible to derive any benefit from it; and should circumstances afterwards arise which seem to demand it, less harm, or perhaps some good, may follow from its employment. But how can bleeding be beneficial in cases arising from causes which depress and weaken the system? and yet we see it practised in such, to quite as great an extent as in those in which plethora exists; a reference to many of the following cases will show this; and what can possibly be expected but death, where bleeding is repeated time after time until the powers of life are so exhausted, that in order to prevent immediate dissolution, brandy and other stimulants are required? Would not a healthy man be prostrated under such a regimen, and how much more one who has received a violent shock from disease? Similar in absurdity is the practice, even now sometimes resorted to, of drawing away the life-blood from persons in a state of collapse from the shock of a severe accident. Another objection to bleeding is the fact, that it is of itself capable of producing both paralysis and apoplexy. Many instances will be found in the following cases, in which abstraction of blood was immediately followed by an aggravation of symptoms, and by paralysis; and it has been no rare occurrence for persons who have, either accidentally or by intent, wounded a large vessel and lost much blood, to be seized with coma or paralysis.* Indeed it has been stated that loss of

* "An alarming accident befel Sir W. Geary, at Oxenheath, Maidstone.

blood has a peculiar tendency to induce soporose disorders, and no one doubts the possibility of its occasioning them. Again, it is generally admitted that persons labouring under paralysis are not capable of bearing loss of blood without inconvenience or danger; and why is not the same fact admitted with respect to apoplexy? It frequently happens that the proximate cause is the same in both diseases, and there is great analogy between them; yet in one, reason and experience have guided us to a more careful and judicious treatment; whilst in the other, custom alone, even in opposition to reason and in the absence of satisfactory experience, has been our director. I can account for this only by supposing that the more chronic character of paralysis has afforded time for observation; whilst in the case of apoplexy, where the danger is imminent, we have been over anxious to avert it by means as violent as the disease is severe, without allowing ourselves time for consideration. A hasty step cannot easily be retraced, and we should bear in mind, that such in general is the difficulty of supplying the system with nourishment, that if we precipitately deprive the patient of blood in greater quantity than can safely be borne, we have not the means perhaps of giving the wherewithal to furnish more to supply its place; and instead of relieving the patient, we deprive him of that without which he cannot exist.

Admitting that there are cases of apoplexy which demand the use of the lancet as the chief means of relief; and that there are other cases also in which its employment is prejudicial and dangerous; it becomes a matter of the greatest interest and importance to discover what are the circumstances and diagnostic signs, by which we may be led to a right discrimination as to the propriety or impropriety of bleeding in each particular case. Now this is undoubtedly a very diffi-

It appears that he fell over a glass screen, which was broken to pieces, and a large fragment of which divided a branch of the carotid artery. A Swiss female servant compressed the wound till medical aid arrived. The loss of blood produced entire inanition, and *paralysis succeeded*."—*Newspaper*.

cult part of the subject; nothing proves it more than the indiscriminate treatment usually adopted. But let us not abandon it in despair, but rather hope, as in so many other instances, that by diligence, patience, and perseverance, we may arrive at so much of the truth as will direct us to, at least a more successful, if not to a perfect mode of treatment.

To assist us in forming a correct diagnosis, we must review in our minds the various proximate causes which may lead to an attack, and endeavour to connect them with the state of constitution or health of the patient. We must also consider the exciting cause or causes that appear to have preceded the attack; and above all, we must attend particularly to the symptoms under which the patient is at the time labouring, that they may be signs of what has occasioned the seizure, and a guide to the proper means of relief.

We shall much facilitate this desirable object, if we learn to distinguish correctly those cases in which the symptoms arise from fulness or plethora, and those which depend upon other morbid conditions. When this first great division is made, we shall have less difficulty in determining other points in relation to the treatment; can we but define those cases which require the use of the lancet, we shall, in a practical point of view, have obtained the object most to be desired in the present investigation. Indeed, with regard to other indications of treatment, there is much less fear of being led into error; the use of emetics, purgatives, counter-irritants, &c., is regulated with more facility, and may generally be left to the judgment of each individual practitioner; the great difficulty is to determine when it is necessary to resort to bleeding, and when to avoid it. If it be allowed that a state of plethora or fulness of vessels in the brain is the *only* condition in apoplexy, under which it is right to abstract blood, we must ascertain what signs represent such a condition. It is stated by some authors that the brain cannot be compressed into a smaller space, and that the quantity of blood circulating in that organ must always be the same. There is, no doubt, from

the anatomical relations of the blood-vessels and the incompressible nature of the brain, a great impediment to the entrance of more than the natural quantity of blood into the brain; and without rupture of vessel, it is difficult to conceive that a sufficient quantity can ever enter to cause dangerous compression of the brain; for we find both in fractures of the skull, and in various diseases of the head, that the brain will bear without injury, a greater degree of compression than can be imagined from any possible distension of its blood-vessels.

But under some states of constitutional disturbance, there may be, and undoubtedly is, a disposition for blood to be sent to the head, and an effort made to overfill the vessels of the brain; but when this is the case, I believe it will always be apparent by visible distension of the external vessels of the head and neck; there is so much obstruction to the entrance of more blood within the skull, and such free communication between the internal and external blood-vessels of the head, that when there is a disposition to greater fulness within, the external vessels will act as safety-valves, and there will be evident distension without. I therefore consider it as a practical rule, that if the vessels of the brain are unduly distended, it will be evidenced by fulness of the external vessels of the head; and that unless we discover the latter, we are not justified in drawing blood for the relief of the supposed existence of the former. In my own opinion, the only cases of apoplexy in which bleeding is proper, are those which occur in plethoric habits, and where, in addition to the symptoms of what is generally understood by a full habit, there is evident distension or fulness of the superficial vessels of the head and neck. Neither do I consider that in these cases, unless there be inflammation of the brain, (which I apprehend is rarely the case,) it is necessary to carry the bleeding beyond the point of relieving entirely the external visible fulness of vessels, or congestion of the lungs from impeded circulation; beyond this we weaken the body by abstraction of blood, without lessening the quantity circulating in the brain; the vessels of the brain

must always be full, and when we have removed the tendency to force an undue quantity of blood into them, we have done all we are required to do as a relief from pressure.

The pulse appears to be a very uncertain criterion of the necessity for bleeding in apoplexy; if we know the constitution and natural pulse of our patient, the state of the pulse in an attack, may somewhat assist our judgment: but even under these circumstances, the greatest possible attention to the effects of bleeding are required, to ensure its not being attended with injurious consequences. Mark how frequently powerful stimulants have been demanded immediately after bleeding, in order to sustain existence for a few hours, or perhaps minutes! Neither is heat of skin to be depended upon as a proof of plethora, requiring abstraction of blood; I have several times seen it quickly removed by the action of a simple enema; and it is surprising how rapidly the surface will sometimes cool, when only slight depletory measures have been adopted. In several of the cases reported as cured, amongst those in which bleeding was practised, the loss of blood was so small as scarcely to be considered a necessary step in the treatment; and it was thus restricted, owing to the signs exhibited by the patient of its not being safe to carry it further; such as quickened pulse, increased insensibility and stertor, diminished warmth of surface and extremities, tendency to convulsion, &c.

Bearing upon this part of the subject, is the rate of mortality at different ages; for we shall find, according to the following table, that, exclusively of cases under 20 years of age, the greatest mortality occurred between the ages of 30 and 60, and that it diminished considerably between 60 and 80 and upwards:—

TABLE OF MORTALITY AT DIFFERENT AGES.

Age.	Cured.	Died.	
Under 20 years	2	18	1 to 9
From 20 to 30	12	18	1 $1\frac{1}{2}$
30 40	6	25	1 4
40 50	7	24	1 $3\frac{1}{2}$
50 60	3	22	1 $7\frac{1}{3}$
60 70	13	17	1 $1\frac{1}{3}$
70 80	9	16	1 $1\frac{3}{4}$
80 & upwards	2	3	1 $1\frac{1}{2}$
Total.....		54	143

The number of cases occurring at the different ages is nearly the same; but the aged have been more successfully treated; and probably, if I may be allowed the assumption, from the greater caution practised as regards depletory measures.

When serious extravasation of blood has taken place, or when apoplexy occurs as the result of organic diseases of the brain, such as tumor, softening, abscess, &c., external signs of fulness are seldom present; indeed we may state that in a great majority of such cases, the symptoms are strongly indicative of a prostrated condition of the system—the pulse is slow, sometimes intermitting; it may be either small or full, but its fulness is more like what we might suppose to arise, from the heart making efforts to propel the blood through passive tubes which had lost their natural elasticity for want of nervous influence; it is what I should rather call a *large* pulse; the countenance is often pale and covered with cold perspiration; the extremities are cold, the muscular system relaxed; the breathing laboured, and nervous power generally almost destroyed. I have myself observed, but perhaps it requires further confirmation, that the pupils being at first very much contracted and afterwards as much dilated, is a sign of fatal apoplexy. Contrast this description with the strong, bound-

ing pulse, the almost bloated countenance, heat of surface, distended jugulars and tonic muscular action, in a woman labouring under puerperal apoplexy; and can it be possible that the same treatment can be applicable to affections so completely dissimilar? Somewhat intermediate between these two classes, but more nearly allied to the former, are those cases which depend upon disorder of some other organ or function of the body, as of the stomach, intestines, kidneys—they are marked by less prostration, and perhaps by less depression or insensibility of the nervous system; but are seldom attended with much force of circulation. There is however too much variation in their symptoms for us to be able to distinguish them with anything like certainty. Of these three divisions, the plethoric apoplexy is the only one in which, as a rule of practice, I should advise bloodletting. If we consider the various exciting causes of attacks of apoplexy, we shall find many of them of a nature to produce depression, rather than increased power in the vascular system. These causes are fear, intoxication, habitual spirit drinking, scrofula, muscular efforts, full meals, hæmorrhages, poverty, dyspepsia, gout, sneezing, stooping, dropsy, amenorrhœa, public speaking, mental despondency, efforts at stool, convulsions, solar heat, diarrhœa, passion, hysteria, epilepsy, cold, rheumatism, jaundice, colic, hypernutrition, &c., many of which indicate, either as cause or effect, an asthenic condition of the body, and deserve consideration in determining what treatment to adopt. The age of the patient is also to be taken into consideration; for although it does not appear that the danger increases with the advance of years beyond a certain period, yet many of the causes are more prevalent at one time of life than at another, and this circumstance may assist us both in diagnosis and treatment.

A comparison of the success attending the practice of bleeding in apoplexy, with that where bleeding was not employed, as shown by the following cases, is decidedly in favour of the latter; and should be considered sufficiently correct, from the number of cases reported, to neutralize the far too prevalent

idea that bleeding is the *only remedy* to be depended upon in apoplexy. The practice of giving emetics when the attack has succeeded a full meal, has not only been safe but effectual. In cases occurring in old age, brandy and other stimulants have restored animation and removed the apoplexy. Purgatives have always been acknowledged to be of essential service in most cases that have recovered. The application of cold to the head, sinapisms to the lower extremities, warm pediluvia, and vesications, have each in their turn appeared to be useful; and are at all events free from the objection that they can either produce or add to the mischief.

I would therefore strongly urge those who may take the trouble to examine the following collection of cases, to dismiss from their minds all notions which their experience does not fully justify; and henceforth to treat apoplexy on the same scientific and rational principles that guide their practice in other diseases.

Tables.

Males.	Females.	Total.	Cured.	Relieved.	Died.
170	80	250	68	7	175

Proportion of males to females $2\frac{1}{8}$ to 1

Proportion of deaths to cases 1 in $1\frac{3}{7}$

Proportion of deaths to recoveries,
including those relieved $2\frac{1}{3}$ to 1

No. not bled, 26. Cured, 18; died, 8

No. bled 129 — 51; — 78

No. of cases in which the treatment is specified, 155.

Proportion of cures in cases treated by bleeding, 1 in $2\frac{1}{2}$

Proportion of deaths in ditto about 1 $1\frac{2}{3}$

Proportion of cures in cases not bled 1 $1\frac{1}{2}$

Proportion of deaths in ditto 1 $3\frac{1}{4}$

	No.	Cured.	Died.	Proportion of Cures to Deaths.
Temporal artery opened	2		2	
Cupping employed	11	6	5	
Leeching	14	4	10	1 to $2\frac{1}{2}$
Bleeding in the foot	17	13	4	$3\frac{1}{4}$ - 1
General & copious bleeding	85	28	57	1 - 2
	129	51	78	

No. of cases in which the age of the patient is recorded, 197.

Age.	No.	Cured.	Died.	Proportion of Cures to Deaths.
Under 20 years	20	2	18	1 to 9
From 20 to 30	30	12	18	1 - $1\frac{1}{2}$
30 40	31	6	25	1 - 4
40 50	31	7	24	1 - $3\frac{1}{2}$
50 60	25	3	22	1 - $7\frac{1}{3}$
60 70	30	13	17	1 - $1\frac{1}{3}$
70 80	25	9	16	1 - $1\frac{3}{4}$
80 upwards	5	2	3	1 - $1\frac{1}{2}$
Total	197	54	143	

No. of cases in which the post-mortem appearances are recorded, 156.

Hæmorrhage	81
No Hæmorrhage	} 75
Inclusive of	
No disease of brain	
10	
	156

C A S E S.

1. Mr. —, about 70 years of age, had an apoplectic seizure. Pulse strong and full. One of the temporal arteries was opened, and about ten ounces of blood suddenly taken from it. He seemed to receive no benefit from this operation, but gradually sunk, and lived but a day or two.—*Darwin's Zoonomia*, vol. ii. p. 402.

2. Mrs. —, about 40 years old, had an apoplectic seizure after great exertion from fear; she had lain about twenty-four hours without speech, or having swallowed any liquid. She was then forcibly raised in bed, and a spoonful of solution of aloes in wine put into her mouth, and the end of the spoon withdrawn, that she might more easily swallow the liquid. This was done every hour, with broth and wine and water intervening, till evacuations were procured; which with other means had good effect, and she recovered, except that a considerable degree of hemiplegia remained, and some imperfection of her speech.—*Ibid.* vol. ii. p. 403.

3. Many people, who have taken so much vinous spirit as to acquire the temporary apoplexy of intoxication, have died after copious venesection, I suppose in consequence of it. I once saw at a public meeting two gentlemen in the drunken

apoplexy; they were totally insensible, with low pulse; on this account they were directed not to lose blood, but to be laid on a bed with their heads high, and to be turned every half hour; as soon as they could swallow, warm tea was given them, which evacuated their stomachs, and they gradually recovered.—*Ibid.* vol. ii. p. 403.

4. Mrs. Scott of Stafford, was walking in her garden in perfect health with her neighbour Mrs. —; the latter accidentally fell into a muddy rivulet, and tried in vain to disengage herself by the assistance of Mrs. Scott's hand. Mrs. Scott exerted her utmost power for many minutes, first to assist her friend, and next to prevent herself from being pulled into the morass, as her distressed companion would not disengage her hand. After other assistance was procured by their united screams, Mrs. Scott walked to a chair about twenty yards from the brook, and was seized with an apoplectic stroke; which continued many days, and terminated in a total loss of her right arm and her speech; neither of which she ever after perfectly recovered.—*Ibid.* vol. i. p. 429.

5. A young man of the name of Nairne, at Cambridge, was walking on the edge of a barge and fell into the river. His cousin and fellow-student, knowing the other could not swim, plunged into the water after him, caught him by his clothes, and approaching the bank, by a vehement exertion propelled him safe to the land, but that instant, seized, as was supposed, by the cramp or paralysis, sunk to rise no more.—*Ibid.* vol. i. p. 430.

6. A gentleman, not quite 30 years of age, rather tall, remarkably plump, fresh complexion, and his neck very short; his manner of living full, never to great excess, in respect to liquors especially. He was seized with an apoplectic fit one day as he was crossing the Thames in an open boat; the waterman landed him, as quick as possible, at the place he was

going to, where all possible assistance was procured expeditiously, and he soon recovered. I saw him at his own house soon after his recovery. In our conversation I inquired if he could recollect the posture he was in when he lost himself; he replied, he was looking at a ship which had formerly belonged to his brother and himself, and kept his eye upon her after he had gone by her, till he lost himself, and sunk down in the boat.—*Med. Observations and Inquiries*, vol. vi. p. 87.

REMARKS.—This and some other occurrences have induced me to think it is very unsafe for persons of such a make, to look backwards any length of time without turning the whole body; and if we inquire of such persons, they generally acknowledge that they find themselves become extremely giddy, and in hazard of falling down, when they keep in that posture only for a moment or two; and I believe that many persons have dropped down in apoplectic fits merely from this unheeded cause.—*Dr. Fothergill*.

7. T. Romanoff, 20 years of age, musician in the Russian artillery, after having played for several hours on a wind instrument, was attacked with a general sensation of coldness and excessive debility. He was taken to the hospital, and remained for two days in the same state. He was rather feverish, was sleepless, and had some difficulty of breathing. He appeared much better in a day or two after, when he was unexpectedly struck with apoplexy. His respiration was stertorous, and the *ensemble* of the symptoms proved the severity of the attack. He was immediately bled, and snow frictions applied to the head, temples, and neck. Every three hours an enema of vinegar was administered. He remained, however, in the same state, and the use of the actual cautery was determined upon. A copper coin was made of a white heat, and suddenly applied between the shoulders near the first dorsal vertebra. The sensibility of the patient was immediately roused. Ammoniacal salts, and other irritants, were applied to the nostrils, and caused him to start. For the first

time a motion was observed in the eyelids. The feet were covered with sinapisms, and very hot balls were placed in the hands, and in contact with the hips. The external senses revived, and the extremities regained their natural heat: the pulse was 80. Six ounces of blood were now taken from a vein in the foot. Romanoff opened his eyes, and in the course of a few hours he had quite recovered his faculties. The next day he could walk with a little support. He was shortly dismissed from the hospital, well in every respect.—*Voïenno-Meditsinsky Journ.*

8. Mr. J——, aged 20, of muscular frame, and having a short neck, was in the habit of using gymnastic exercises to a considerable extent. One morning, after rising from bed, it is conjectured he had been making some violent exertion, and had fallen down insensible. In little more than an hour he was dead. The body was examined on the evening of the same day. The face was pale, much blood flowed when the scalp was divided, and when the calvarium was raised, the vessels and sinuses of the dura mater were turgid, but it was otherwise natural, as was the arachnoid; there was no fluid between the membranes. The convolutions were flattened. In removing the brain, it suddenly gave way at the upper and middle part of the right hemisphere, from which opening gushed about five ounces of fluid blood, and a coagulum which measured three inches. The lateral ventricles also contained blood. In the right hemisphere was a large irregular cavity, capable of containing six or seven ounces; and its sides, when gently wiped, presented the open mouths of ruptured vessels; which appeared to be those which entered from the outer side of the right hemisphere. There was no other appearance of disease, and the texture of the whole, where not actually broken down, was firm.—*Medical Gazette*, vol. ii. p. 621.

9. A robust man, aged 25, had an apoplectic seizure on the 8th of August, from which he recovered under the use of the

usual means. Aug. 16th.—Notwithstanding the depletion, both generally and locally, he has undergone, he complained this morning of a numbness and loss of power in his left side; he was again cupped on the left hypochondrium, with the most decided benefit, the sensibility of the part having returned, and the sensation of numbness being removed; but on the following day he complained of a numbness, accompanied with a tingling in his lower extremities, and partially so in the upper extremities, which were much relieved by cupping and blistering; but during the night the tingling sensations in his lower extremities increased, preventing his sleeping, and, upon attempting to turn himself in bed, he found he had lost the power of moving his legs. Upon an inquiry into his symptoms, he said he felt a degree of pain, which he described to be in the situation of the origin of the lumbar and crural nerves; his limbs are partially sensible when pinched; pulse 96, rather full; bowels have been freely open for some days by medicine; system under the influence of mercury. He was again cupped on the loins, followed by the application of a blister.

He rapidly improved as to his general health under the use of various remedies; but continued up to the 17th of September, without any power of the lower extremities. Two moxas were then applied to the loins, in the situation of the transverse processes of the lumbar vertebræ, every other day, to the extent of producing redness of the surrounding skin; a quarter of a grain of extract of *nux vomica* (prepared in vacuo) given every six hours; and half a grain of sulphate of quinine three times a day. The dose of the *nux vomica* was gradually increased, and by the 14th of October he was taking six grains of the extract every six hours. The moxas were also regularly repeated, and, under the combined influence of the two, he entirely regained the use of his limbs.—*Medical Gazette*, vol. iv. p. 493.

10. C. D., a healthy man, aged 25, was brought into St.

Thomas's Hospital completely insensible. Pulse about 50, full and labouring. Breathing stertorous. The skin had a profuse warm perspiration. Pupils contracted and insensible to light. He was put to bed, and soon afterwards the head became very hot, and the face much flushed. V. S. ad $\bar{3}$ xx. Enema terebinth. After the bleeding the pulse became quicker, harder, and more distinct. The stertorous sound in respiration ceased, but there was still a peculiar sound, arising from the lips being closely pressed together, while the cheeks, from want of action in the buccinators, flapped loosely backward and forward with each expiration and inspiration. On the supposition that he had taken poison, the stomach-pump was next employed, but no trace of any poi-on could be detected in the fluid thus obtained from the stomach. At the end of two hours the insensibility continued unaltered. The feet first and then the hands had become very cold; and the whole surface (except the head, which continued hot) had sunk below the natural standard of temperature. The pulse had also become much weaker. Brandy and sp. ammon. c. were now administered. A marked change in the patient's condition followed this alteration in the treatment. He became violently agitated, tossing his arms about, rolling from side to side, and attempting to get out of bed; two or three strong men were at one time necessary to keep him in bed. While thus agitated he moaned loudly, and appeared to attempt to articulate something; the countenance changed much. He opened his eyes, and stared around him with a marked expression of suffering, and an appearance of some consciousness; when called to loudly by his name, and asked whether he was in pain, he answered, "Y—e—s." The face became still more flushed, the pulse rose considerably, and the feet and hands became warm. He continued in this state more than two hours, and then suddenly became quiet and rational, and afterwards fell asleep. He awoke in order to have a stool, walked without support to the closet, returned to his bed, and at 10 p. m. he was sleeping easily and quietly; pulse 100, respiration

natural, and his surface comfortably warm and perspirable. The next day he was quite well.—*Medical Gazette*, vol. iii. p. 396.

11. M. S., plethoric and short-necked, aged 21; complete insensibility and loss of power over the voluntary muscles. Pulse full, labouring, and below 40. Surface covered with a copious warm perspiration, and breathing loudly stertorous. Pupils almost inactive. V. S. ad \bar{z} xvi. Enema ol. ricini. The pulse became quicker and harder. In about two hours, the pulse being still very strong, with no abatement of the other symptoms, the patient was cupped between the shoulders to \bar{z} xx. Zinci sulph. \bar{z} ij were also given as an emetic, and ol. croton. gtt. iij., to produce a powerful action on the bowels. After the second bleeding the pulse became weaker and slower. The breathing ceased to have any unnatural sound, and the skin became cold. The head continued hot, and a copious vapour of perspiration arose from it. In four hours the head had lost its superabundant warmth. The extremities were cold, pulse 44, feeble, and slightly irregular. The coma continued. Neither the emetic nor the purgative had acted. Two table-spoonfuls of brandy caused the pulse to rise ten beats in a minute. Shortly afterwards the stomach was emptied by the pump. The brandy was repeated, and the patient very soon recovered. At 10 p. m. he was perfectly sensible; pulse 90, weak and irregular in force; the breathing easy, and he complained of nothing but slight pain in the head. The bowels had been well opened. In a few days he had completely recovered.—*Medical Gazette*, vol. iii. p. 396.

12. J. Hay, æt. 40, coachmaker; admitted into the Edinburgh Infirmary, November 8th. Has paralysis of the muscles of right side of the face, and orbicularis of the right eye; power of the masseter and temporal muscles does not seem to be impaired. The tongue on protrusion points to the right side, the mouth being turned to the left; the sensibility of the

right cheek is perfect, that of the left somewhat impaired, with sensation of numbness, which the patient states he observed after the extraction of three diseased teeth from the left jaw. Has double vision at times, and the sight of the right eye is permanently weak; pupils contracted, sensible to light. Not subject to headach, but has occasional vertigo and tinnitus auricum; no deafness, no paralysis of any part of the extremities. Bowels regular; pulse 92, full; tongue whitish, moist; no thirst; appetite good. States that two years ago he was affected with dropping of the lid of the right eye, which continued about a fortnight, and was removed by blistering. There does not seem to have been any other symptom at that time referable to diseased action in the head. Three months ago had severe headach from exposure to cold; states that he had no delirium or paralytic affection at this time, but the exact nature of the symptoms cannot be ascertained. He was treated with leeches, blistering, and purgatives, and was ill four weeks. Shortly after had fever—no severe local affection. Present symptoms began six days ago, paralysis having first attracted notice. *Ven. Sect. Abradt, capillæ et lavetur caput nocte maneque aquâ frigidâ. Bol. jalap. c. h. s. et cras mane haust. cathart.*

9th.—Bled with immediate sensible effect. Three stools. *Empl. canth. nuchæ bol. jalap. h. s.*

10th.—One light-coloured feculent stool. Blister rose well; free from vertigo or tinnitus; pulse 100, of good strength. *Pil. ij. aloet. mane et vespere.*

12th.—Two stools; some vertigo while sitting up last night; pulse 100, rather weak; inflammation of right eye and partial paralysis continue. *Sumat pil. hydr. ij. mane et vespere. Collyrium zinci opiat.*

13th.—At 2 A. M., attention of nurse was attracted by the patient snoring loudly; on being spoken to, he answered pertinently, but with difficulty, complaining of loss of power of left arm and side; said he was free from headache; pulse 76, weak, compressible, and labouring. Was bled to $\bar{3}$ xvi, with

relief to breathing: half an hour after became comatose, in which state he has continued since. Respiration very labouring, with frothy mucus passing from the mouth; alternate inflation and contraction of cheeks. No stool. Some croton oil was given about an hour and a half ago. Pulse 120, weak and soft. Muscles of all the extremities seem relaxed; left eyelid droops; some languid motion of eyeballs. Enema purigans. Abradant. capillæ et tegat. totum caput vesicatorio. Cruribus applic. sinapismi.

14th.—One large stool from enema. Symptoms continued without change through the day. Died at ten o'clock.

Sect. Cadav.—Head, veins and sinuses turgid. No serous or sanguineous effusion under the membranes; substance of the brain of a fleshy colour, and presented numerous red points on the cut surfaces. Very slight serous effusion into the lateral ventricles, and the plexus choroides more turgid than natural. Coats of basilar thickened; within the vessel a considerable coagulum; at one part the calibre of the vessel was plugged up by a deposit of coagulable lymph.

Lungs and heart healthy. The descending aorta, about an inch from the arch, presented an unusual specimen of disease; on the inner surface there were numerous white elevations, soft to the touch, smooth; some of these were abraded on the surface, and others, which were also of a greater size, seemed to have ulcerated, and to have poured forth blood, which gave a dark colour to the diseased growths; some of these were as large as a finger nail.—*Medical Gazette*, vol. vii. p. 319.

13. A woman, who was admitted for an old cutaneous disorder, had some slight pectoral symptoms; suddenly there appeared symptoms of great oppression of the nervous system, and within sixty hours she died comatose, having been previously blind for twelve hours. On dissection, little or no disease could be detected in the head; condensation of the lungs was the only remarkable morbid appearance.—*Medical Gazette*, vol. vii. p. 320.

14. William Glover, æt. 23, a healthy farmer's labourer, had obtained illegal possession of a pint and a half of brandy, which from about one o'clock, A. M., he drank. At eight o'clock, A. M., he was found in an open shed apparently dead. The throat, face, and hands swollen, and the two latter of a purple hue and quite cold; in short, at the first glance he appeared dead, and becoming cold. No pulse at either wrist; nor can the carotids be distinctly felt to beat. The stethoscope detects slight action of the heart and feeble respiratory murmur. The jaw firmly locked. Pupil dilated and insensible to light. The feet livid and cold. The urine has escaped from the bladder. Having enveloped the feet in hot flannels, the man was directed to be held in a sitting posture; and two quarts of cold water at a time were thrown from a height upon his head. The first and second doses produced no effect; the third time, however, a very slight "catch" of the breath was produced; these "catchings" became at each effusion more marked, until, at length, a long free inspiration was produced and fully established. As the respiration became more and more free, the lividity gradually left the face and extremities, the circulation returned at the wrist, and with the circulation, warmth was gradually diffused over the whole frame, until, in about twenty or thirty minutes, the pupil acted, the jaw relaxed, and, on speaking loudly in his ear, he was made to articulate—an oath or two. The stomach was now washed out with the stomach-pump, and a strong dose of aperient medicine left in it. He was removed home, a distance of half a mile, and the pulse becoming, after he had been in bed a short time, full, with a slight heaviness in the breathing, he was bled to eighteen ounces. He slept for several hours, and awoke sensible. The next morning some considerable reaction required another bleeding and cold *ablution* of the head. He recovered in a few days.—*Medical Gazette*, vol. ix. p. 502.

15. J. Milton, æt. 45, a pedlar, was brought to the Middlesex Hospital at six o'clock in the evening of the 29th Decem-

ber, in a state of deep insensibility. His countenance was suffused with a dusky flush; pupils largely dilated, and immoveable, frothy mucus, occasionally tinged with blood, issuing from his mouth. No contortion of features. Surface of his body cold and mottled; the muscles of his extremities were rigid, yet affected with slight tremors; his respiration was loudly stertorous, short and convulsive, but deeper and more natural at every fourth or fifth movement; pulse 100, full, hard, and labouring. One of the jugular veins was immediately opened, and 3xviij. of blood were suffered to flow. The bleeding reduced, in some degree, the volume of the pulse, without abating its hardness; it was followed by no amendment of the general symptoms. As he had been brought from a public house, and something had been said about his drinking, it was thought right to use the stomach-pump; but there was no odour of spirits in the fluid withdrawn from the stomach. Twelve ounces of blood were then taken from the temples by cupping; his head was shaved and covered by a blister; and ten grains of cathart. extract, with a drop of croton oil, were placed upon the back part of his tongue and *swallowed*. A turpentine enema was also injected, and a mustard poultice applied to the epigastrium. Three pints of limpid urine were drawn off by a catheter. He made some feeble attempts, with one hand, to resist the introduction of that instrument. This action, the deglutition of the pills, and the labouring respiration, seem to have been the only remaining evidences of sensibility to external impressions. He remained for some hours in nearly the same condition, and then gradually sunk. He died fourteen hours after admission.

Post-mortem examination.—Twenty-four hours after death. The extremities were livid, and the muscles generally were rigid. Small quantity of fluid in each pleural cavity. Lungs simply gorged with blood. The heart was much enlarged, and its augmented size was chiefly owing to a great increase in the muscular substance of the left ventricle. Considered in relation to the general bulk and stature of the patient, the

walls of that cavity were of nearly twice the ordinary thickness; there was no increase of its capacity. The valves and internal lining of the heart were healthy and natural; but at the commencement, and along the arch of the aorta, there were seen many of those opaque and uneven patches which are so often seen there, and which result from the deposition of a matter resembling cartilage, mixed frequently with scales of bone, immediately beneath the inner membrane of the artery. These were more numerous and larger, around the orifice of the principal branches of the aorta than elsewhere. Head.—The longitudinal sinus contained a continuous string of dark coagulated blood. No effusion beneath the arachnoid; the convolutions of the cerebrum were flattened, and, as it were, pressed together, and the sulci between them much shallower than usual. A large quantity of blood, partly in the condition of soft coagulum, partly of a red-coloured serum, was found occupying the situation of the left lateral ventricle; the septum lucidum had been broken down, and a free communication formed between the two ventricles. There was less blood in the right ventricle. Blood had passed downwards also, into the third and fourth ventricles, and a firm coagulum was lying beneath the optic commissure. No manifest disease in the principal arteries at the base of the brain; but the same cartilaginous deposition which had been noticed in the aorta was met with also in each of the common carotids.—*Medical Gazette*, vol. ix. p. 847.

16. A young gentleman, æt. 11, was seized one day with hemiplegia, and had double vision, and the attack was soon followed by coma. Previously he had had double vision, and pain of the opposite side to that in which hæmorrhage afterwards took place. After death, the only thing that could be discovered was congestion in the brain, and it was fancied that the corpus callosum was softened. A few minute tubercles were found in the arachnoid, but nothing to cause apoplexy. His brain was far larger than it ought to have been in a child

of his age. The brains of very few adults attain so large a size. He was remarkably clever, and was not contented with the society of other children, but associated with his father and mother.—*Medical Gazette*, vol. ii. p. 679.

17. A German died apoplectic at the age of 30. He had very powerful mental faculties. His head began to grow at seven years of age, and at 30 it was 27 inches 5 lines in circumference; the rest of his body was not proportionate.—*Medical Gazette*, vol. ii. p. 679.

18. Mr. R., æt. 36, of middle stature, inclined to be corpulent, with rather a large head and short neck, has been for years in the habit of drinking large quantities of spirituous liquors, generally a bottle of brandy a day, besides wine; and some days much more. Has several times been afflicted with disease. For this last year he has not taken his accustomed exercise, but led a very sedentary life, still continuing to take large quantities of animal food, and indulge in his usual dram-drinking. He has been rather deaf for some years; latterly his deafness increased, and his memory at times appeared to fail him; he has also been more irritable in his temper. A few days previous to the attack of the following disease, he had changed his liquor from brandy to gin; and the latter always, when in health, affected him more than the former. On the 24th of September, he was much intoxicated from both liquors. On the 25th he complained of a violent pain of the head, and took but little food, and not more than half his usual quantity of brandy. At about 8 o'clock, p. m., while asleep on the couch, he suddenly fell down in a fit of apoplexy, was quite insensible, breathing with difficulty, at the same time blowing with violence a viscid mucus tinged with blood, from the mouth and nose; pupils of both eyes fully dilated and insensible to a strong light; pulse slow, oppressed, and beating about 84 in a minute; the action of the heart was performed with great labour; the temperature of the skin, except about

the head, was below the natural heat, with profuse perspiration. About thirty ounces of blood were immediately taken from a large orifice from the arm before sensation returned, or the stertorous breathing was relieved. From this sudden abstraction of blood the pulse became more expanded, beating 120 times in the minute. After a short time he became conscious, knew his friends, and with assistance was able to walk to bed. He expressed himself relieved, but complained of violent pain about the back part of the head; he attempted to utter many words which he was unable to do, from partial paralysis of the muscles of the larynx. *R. Hydr. subm. gr. v., 2 dis horis. R. Magn. sulph. ʒij., ol. croton. ʒss. Tr. sennæ ʒij. mist. camph. ʒix. m. ft. haust. 3tiis horis sumend. Empl. lyttæ nuchæ.*

Ten o'clock, P. M.—Relapsed into another fit similar to the last. Both pupils were more contracted; the pulse became slower, and the action of the heart appeared to be performed with great difficulty. *Rep. detr. sanguinis ad ʒx.* Sinapisms to the pit of the stomach and to the lower limbs. Shortly after the last blood was taken away, and as soon as the sinapisms began to act, he again became conscious, and appeared relieved.

Sept. 26th, half-past one o'clock, A. M.—He again relapsed into his former state; pulse 130. Carotids and temporal arteries beating violently; pupils much more contracted and insensible to light. It was agreed in consultation that ten ounces more blood should be withdrawn, the patient's head shaved, an evaporating lotion constantly applied, and to persist in the remedies already prescribed. At 5 o'clock, A. M. the patient was conscious of what was going on in the room. The bowels had been freely relieved of dark evacuations. Pulse 140 in a minute.

Ten o'clock, A. M.—The patient had been asleep; he appeared now quite sensible. Complained of griping pains in the abdomen. There was still hesitation in his pronouncing certain words. No pain of the head, but considerable un-

easiness about the liver and spleen. Tongue moist and rather white; pulse 120, full and soft. Cont. pulv. 4tâ quâque horâ c. haust. sequente. R. Dec. aloes c. ʒj. vin. colch. ʒss. mist. camph. ʒss. m. ft. haust.

27th—Had passed a comfortable night; slight ptyalism; bowels freely open; complained of no pain, save of the mouth and teeth; great thirst; tongue moist and rather white; pulse 100, soft. To discontinue the powders and continue the draught. R. Sod. subbor. ʒiv. mellis ʒss aquæ distill. ʒv. ft. gargar. sæpe utend.

28th. Half-past ten o'clock, A. M.—Complained during the night of slight illusive visions, and was unable to get to sleep before dawn; after that he slept well between three and four hours. After he awoke he felt refreshed, was perfectly collected, and suffered no pain. During yesterday he could not be prevailed on to take the quantity of brandy prescribed; tongue moist and clean; pulse 110, and feeble. Ordered to take an increased quantity of spirit, and beef-tea strongly spiced. R. Sp. am. arom. ʒxl, dec. aloes c. ʒiij. mist. camph. ʒix. mf. haust. 3tiis horis sumend.

R. Hydr. c. cretâ gr. vj. vespere cum haust. sequente. R. Sol. morph. mur. ʒxl. aquæ distil. ʒj. M.

Eight o'clock, P. M.—Found the patient sitting up in bed, with an expression of great anxiety. Skin cooler than natural, covered with a profuse perspiration; tongue moist, covered with a white fur. Pulse 100, feeble. Complained of no bodily pain, but said he felt certain he was dying. Ordered to take brandy and sago frequently. R. Pulv. opii. gr. v. hyd. subm. gr. iij. m. ft. pil. stat. s. R. Pulv. opii gr. i., camph. gr. iij. ft. pil. 3tia horâ cum haust. sequente sumend. R. Am. carb. gr. v. T. Valerian. ʒj. aq. menth. p. ʒj. M.

Ten o'clock, P. M.—The patient presented all the symptoms of delirium tremens in a more decided manner. There was continued agitation of the extremities and whole body, the ravings were incessant and very violent. The skin was cool, and covered with a profuse perspiration. Ordered to take a

pill every hour, alternately with brandy and water and the draughts; and to have the following liniment rubbed over the pit of the stomach. R. Lin. amm. ʒj. morph. mur. gr. iij. ft. liniment.

29th. Three o'clock, A. M.—The delirium continued with the same degree of violence; he had taken twelve grains of opium without the slightest effect; pulse more feeble, tongue and mouth more dry, and loaded with viscid mucus. Ordered to continue his brandy, and to take T. opii mxx. 2 dâ horâ.

Nine o'clock, A. M.—Same state. There appeared to be a disposition to sleep. R. Tr. opii mxx. Tr. Valerian. am. ʒj. mist. camph. 3xj. ft. haust. 2 dâ horâ sumend.

Noon.—He was in a disturbed sleep, having great difficulty in breathing, with a mucous rattle in the trachea, and constantly moaning.

Five o'clock, P. M.—He had awoke, and after much exertion, expectorated some viscid mucus. Took a small quantity of brandy and water, and again fell into a comatose state. The pulse was very feeble, and appeared to be a continued stream.

Nine o'clock, P. M.—Has been gradually getting worse. He appeared conscious, but was unable to swallow. From this time he sunk rapidly, and died about midnight. There was no post-mortem examination —*Medical Gazette*, vol. xv. p. 78.

19. The remains of J. B., æt 18 years, dead forty odd hours, of apoplectic symptoms, were inspected. He had been long an invalid and an inmate of the workhouse, from debility arising apparently in the main from a scrofulous habit, and was extremely emaciated. Evidence of phthisis and chronic pleurisy existed in the thorax; and attached to the bronchi was an enlarged gland, as large as a good-sized apple, which did not seem to have affected respiration. The liver, spleen, and kidneys, were greatly congested, and the mesenteric glands were diseased. In the cranium nothing was observed, except extreme congestion of the brain and its tunics; there was no

effusion. The viscus weighed 2lbs. 13oz. The appearance of the encephalon was such as the violent stimulus of insolation might produce; but no adequate exciting cause was ascertained. —*Medical Gazette.* Vol. 16, p. 692.

20. A coloured woman, aged about 50, somewhat corpulent, and the mother of several children, after a hearty meal of animal food, peas and rice, tumbled down in a state of insensibility, and immediately expired. A post-mortem examination was made. As soon as the cranium was opened, a considerable collection of blood was discovered about the base of the brain, much of which was still in a fluid condition. When the organ was removed from its cavity, a large coagulum was found occupying the fissure of Sylvius, and extending for some distance into the corpus striatum. There was likewise considerable extravasation within the corresponding lateral ventricle. The arteries of the brain were rigid, much dilated, and studded over with numerous points of ossification. The extravasation had taken place in consequence of a rupture of their tunics. On examining the stomach, the organ was found impacted with peas, rice, homminy, and other articles of the individual's repast, to a degree to which it would scarcely be possible to believe could be borne without extreme suffering, and an extensive embarrassment of the functions of the whole of the associated organs. Its condition was such as to encroach upon the intestines, compress the aorta, and the vessels given off by it in the epigastric region, press upon the plexus of nerves behind the stomach, and finally force up the diaphragm upon the lungs so as to interrupt their play, and thus embarrass the function of respiration, thereby interrupting the passage of the blood through them, and consequently impeding its return from the head. Being thus confined on the one hand to the vessels of the brain, by these causes, and driven upon it, on the other, by the pressure sustained by the aorta, which prevented the distribution of the usual quantity of blood to the lower part of the body, it is not to be wondered, when the fragile

state of the tunics of the cerebral arteries is considered, that they should have been unable to sustain the onus suddenly thrown upon them, and that they gave way under its influence. —*Medical Gazette.* Vol. xvi. p. 735.

21. William Tuck, æt. 35, out-patient at the Westminster Hospital for hæmorrhage, supposed to be from the stomach. He was emaciated, and much out of health; on which account he was admitted into the hospital on Tuesday, Oct. 9, 1838. In the course of two hours after admission, as he was walking across the ward, he cried out suddenly of pain in the head, and fell down insensible. He was seen by the apothecary immediately, who found him insensible, comatose, breathing slowly, deeply, and unfrequently; but without stertor, and without the slightest convulsion or muscular movement. He died in about 30 minutes after the seizure. In fact he seemed to be dying from the moment of the attack.

P. M. During the removal of the upper part of the cranium, three ounces of bloody serum flowed through the wounds in the dura mater. The dura mater having been raised exposed a thick layer of coagulated black blood, spread over the superior surface of both hemispheres, particularly of the right; and amounting certainly to five ounces. This extravasated blood was situated between the arachnoid and dura mater. The brain having been removed entire, some bloody serum was seen in the cranial depressions at the base, but no coagulum. The arteries of the brain were examined, 1st, at the base, where all were sound: though the left vertebral was anormally small, being not more than one-half the usual size. The cerebral arteries were next traced, and found to be sound also, with the exception of the right middle cerebral artery, the main trunk of which having been traced in its course through the fissura Silvii, and afterwards its larger branches into the cerebral anfractuosities, one of these was seen leading to a small aneurism situated at the superior outer and anterior part of the middle lobe of the right hemisphere, in one of the intergyral

spaces, thus forming a small round tumour, the size of a swan shot, on the surface of the brain, immediately under the arachnoid. The aneurism had ruptured, the rupture running directly across the little sac superiorly, and through the arachnoid; and hence the source of the blood poured out between the arachnoid and dura mater. The walls of the sac were half a line thick, white, and of an almost cartilaginous firmness, the sac itself like a small hollow sphere, smooth and shining within; and at the bottom was seen the circular mouth of the artery opening into the sac. The brain itself uninjured. The liver was indurated to the first degree; the spleen enlarged; and the stomach very vascular. The thoracic viscera normal.—*Medical Gazette.* Vol. xxiii. p. 453.

22. — Clarke, a butcher, æt. 35, well built, and of full stature, while walking home in the middle of the day, somewhat excited by liquor, was seized with a violent pain, deep seated in the back of the head, which made him stagger and unable to reach his house, though near at hand, without assistance. The pain continued fixed and violent, and the head was drawn round, so that the face looked over the right shoulder; in which position it remained unaltered till his death. He expired on the third day, without any febrile movement having sprung up, or any change having occurred in the symptoms, other than the pain shooting down the spinal marrow. He was neither comatose nor insensible. He seemed to die exhausted by the unremitting, severe, obtuse pain, which was in no way affected or relieved by bloodletting, by purgatives, opiates, or counter-irritation. Necrotomy—The brain was sound in every part; but having been removed, there was exposed a coagulum (about one ounce and a half) of black blood at the base of the cranium, which entangled the left spinal accessory nerve in its course from the occipital hole to the posterior lacerated foramen. The arteries at the base of the brain were free from disease, and the source of the hæmorrhage could not be discovered.—*Medical Gazette,* Vol. xxxiii. 454.

23. Matthew Fearn, æt. 60, admitted Nov. 16, 1836. He had been always a hard drinker; and on one occasion, seven years ago, after having drunk immoderately, was seized with a fit, was for a time insensible, and his whole body paralyzed. From this he quickly recovered, and has escaped any other serious attack; though, whenever he stooped, he would grow giddy, and be liable to fall. For the last two months, he has been subject to pain in the head, giddiness and tingling at the ends of the fingers; and when he has been going to take hold of anything, his hand would frequently be clenched before reaching the object. A fortnight ago, while reading in the evening, he suddenly lost all sense, and fell down in a fit, remaining unconscious for about five minutes, and then recovered with the loss of the use of his left side—a state of complete hemiplegia. When brought to the Hospital, the left side was not only paralyzed, but its sensation was diminished. Although he was sensible, the energies of the brain and nervous system were impaired, and his muscular powers consequently diminished; he lay helpless upon his back, and passed his motions and urine in bed; yet he took food with appetite, requiring, however, to be fed with a spoon, slept well, and was free from any pain or bodily disorder. The pulse did not exceed 60, was hesitating, though not deficient in power. He could not protrude his tongue beyond the lips; and when he had got it thus far it was drawn suddenly and involuntarily back into the mouth. Empl. canth. summo capiti; haust. jalap. mane; hydr. chlor. g. j. o. nocte.

By continuing the alterative every night, by repeating the purgative occasionally, and applying a second blister to the top of the head, some improvement took place; the pulse rose in number above the natural standard, and lost its hesitating character; the dejections and urine were passed less frequently in bed; and he would ask or make signal for the urinal and so on; he understood what was said to him, yet was much embarrassed to answer; he could not find or put together the necessary words; but when he could command one or two

words, they were appropriate and well articulated; the difficulty seemed to regard the power of language, not of articulation. At the beginning of December, the left thigh and leg began to swell, with hardness and tenderness, from the groin downwards, in the course of the veins, presenting the decided characters of phlegmasia dolens. This state persisted, the limb became more swollen, and soon his appetite began to decline, and his powers to fail; nevertheless he survived till the end of the month, before which period symptoms of gangrene had appeared in the foot of the affected extremity, and large deep sloughs on the back. Necrotomy—Aqueous effusion under the arachnoid, also at the base of the brain and in the ventricles, to about three ounces. The intergyral spaces were deep and large, and the brain appeared small for the cranium. The brain itself anormally firm, except parts of the anterior and middle lobes of the right hemisphere. The antero-superior surface of the anterior lobe, about one inch square, was yellow, soft, and depressed below the level of the general surface of the brain; and the hemispheres being separated, this same condition was seen to occupy the whole of the inner surface contiguous to the falx of the anterior, and part also of the middle lobe extending downwards to the corpus callosum. Horizontal sections of the right hemisphere being made, discovered the internal or medullary portions of the anterior lobe, and in part also of the middle lobe, to be disorganized, yellowish, soft and pulpy; the disorganization, however, not penetrating to the ventricle. The only portions of the anterior lobe not involved were the outer and lateral convolutions.—*Medical Gazette*. Vol. xxiii. p. 455.

24. I was called in to a gentleman who, after a hearty meal, was attacked with the symptoms of apoplexy. Salt and water having been given to him, and failed in inducing vomiting, the fauces were irritated by means of a feather—and succeeded. He became, however, worse, and entirely lost the power of swallowing. This was in the evening. At six o'clock in the

morning he appeared to be in articulo mortis, and I thought that before the two medical gentlemen, who had seen him with me on his first seizure, and who were again to visit him at half-past nine, arrived, my patient would be no more. But he rallied towards eight, and when they met, more hope was entertained of his life than when they saw him last. At eleven o'clock he began again to sink, and at twelve o'clock at night died; the power of swallowing never having returned after seven on the preceding evening.

25. Mrs. — 80 years of age, was seized suddenly by what appeared to be paralysis. Her hands and feet were cold, and the pulse scarcely discernible. I tried to get a few spoonfuls of brandy and water down the throat, but no effort was made to swallow it, and it flowed out again over the corner of the mouth. I passed the pipe of a stomach pump over the back of the fauces. This irritation induced an attempt at deglutition, which I immediately took advantage of, and gave her the brandy and water. She recovered, and never did I see a narrower escape from death.—*Medical Gazette*. Vol. xxiii. p. 605.

26. A gentleman, who had long shown symptoms of what would have been termed "Ramollissement de Cerveau," fell down in a fit of apoplexy, at the age of 68, and not the slightest impression was made by cupping, leeching, blisters, enemas, and all the means which a trio of physicians could suggest. One left the patient for dead, after taking four ounces of blood from the head; and he was apparently in articulo mortis, after 48 hours of general paralysis, total insensibility, stertorous breathing, glassy eyes, and dead "rattles" in the throat! The physician took his leave at twelve o'clock at night, requesting to be informed in the morning at what hour the patient died. No message having been sent, the physician called in the morning, and found, to his no small surprise, the patient at his breakfast, quite sensible and with the full power

of all his muscles! The patient soon after this, disgorged some pints of fetid bile, and had no return of apoplectic or paralytic symptoms.—*Medico-Chir. Review.* Vol. viii. p. 455.

27. A young man, æt. 20 years, of muscular frame, short neck and middle size, had habituated himself to considerable gymnastic exercises, and never required the assistance of a medical man. On rising from his bed, on the 19th of October, 1826, he fell down insensible, and expired in the course of an hour. The head was examined the same day. On separating the skull-cap from the dura mater, three or four ounces of blood escaped. The vessels of the pia mater were turgid—the convolutions of the brain had a flattened appearance. In the right hemisphere of the brain there was a clot of blood to the amount of five or six ounces. The lateral ventricles were also found filled with blood. The texture of the brain was completely broken up in the part where the blood was extravasated.

28. A young man, tall, muscular, and accustomed to drink spirits, died suddenly, and besides six ounces of water and some blood in the ventricles, there were four ounces of coagulated blood at the base of the brain, which blood had escaped from a small aneurism of the left vertebral artery. Both vertebral arteries were in a diseased state, being in some places cartilaginous, though the individual was only 24 years of age.—*Medico-Chir. Review.* Vol. x. p. 211.

29. A female, aged 60 years, experienced, on the 17th of September, the precursory symptoms of apoplexy, and was conducted to the Hôtel Dieu on the 18th. She had now paralysis of the right side, great prostration of the intellectual faculties, mouth drawn to the left side, pulse full and regular. An emetic was exhibited, but no improvement resulted. On the contrary, the symptoms indicated cerebral inflammation, and the patient expired on the thirteenth day from the attack.

Dissection—The meningeal vessels were gorged with blood. The *right* hemisphere of the brain was firm and healthy. In the middle of the corpus striatum of the *left* side there was an extravasation, or rather an infiltration of blood to the extent of an inch and a half, the surrounding cerebral substance being softened and diffuent as jelly. The lining of the corresponding ventricle was thickened. *The whole of the arteries of the brain were ossified, excepting the smallest twigs.*

30. Mad. D., aged 73 years, had experienced some head affection a twelvemonth previously to the night of the 29th January, when she was stricken with apoplexy. She lost her speech, but preserved her intellects to a considerable degree. The *left* side was paralytic, but sensible. She was carried to the Hospital on the 30th, and died next day. Dissection—The vessels of the dura mater were gorged with blood. The posterior lobe of the *right* hemisphere was a quagmire of extravasated blood, the cerebral substance having been torn up, and a vast depôt collected there. The basillary artery, and indeed all the arteries of the brain, were streaked with white patches of phosphate of lime, and some were completely ossified.

31. A patient in La Pitié died of apoplexy, and the basilar artery was found to be aneurismatic. The sac had burst, and blood was extravasated. The coats of the artery were cartilaginous.

32. A young female only 21 years of age died of apoplexy. The basilar artery was aneurismal, and had burst.—*Medico-Chir. Review.* Vol. x. p. 585.

33. Joseph Bell, aged 60, fell on the floor in a state of insensibility. A surgeon was immediately sent for, who discovered him to be in a fit of apoplexy. His eyes were fixed, and he was breathing with great difficulty. The surgeon bled him, and for a few moments he appeared to rally, but speedily

sank again, and died within an hour. The deceased had formerly been a shoemaker, in an extensive way of business, but had failed, and had fallen into the most wretched poverty, his only means of subsistence being by journeyman's work.—*Times Newspaper.*

34. A woman scarcely 40 years of age, died of apoplexy under the care of Dr. Seymour, and was examined in the dead-house of the Hospital. The body was remarkable for its fullness of contour and embonpoint. *Head*—The right lateral ventricle was found filled with bloody serum, and contained in its cavity a clot of recent blood. The coagulum was mainly in the body of the ventricle, and passed for some depth into its descending horn, but not into the anterior or posterior. The clot was about the dimensions of a walnut, and had made its way into the cavity of the ventricle by breaking up the connexion between the thalamus and striated body. The left ventricle was distended by much bloody serum, but no coagulum was present. The arteries at the base of the brain had osseocartilaginous depositions in their coats. No rupture of any one large vessel was detected. *Heart*—The parietes of the left ventricle were full an inch in thickness, but its cavity was not much enlarged. The muscle of the right ventricle was not above a line in thickness, and tore with the slightest force. The heart on the whole was larger than natural. The mitral valve was thickened, and gritty depositions were felt in its substance. Ossification was commencing at the attached border of the semilunar valves of the aorta, and the coronary arteries were beginning to be ossified. The aorta itself was free from disease.—*Medico-Chir. Review.* Vol. xi. p. 458.

35. J. R., æt. 25, robust and plethoric, was seized on the 8th of August, 1828, with "sanguineous apoplexy," from which under proper treatment he had recovered on the 14th. On the 16th he complained of numbness and loss of power in the left side, which were removed by cupping; but on the following day

numbness and tingling were felt in the lower extremities, increased during the night, and ending next morning in complete loss of power over the limbs. Partial sensibility remained; there was pain in the loins; pulse 96, rather full; bowels open by medicine; system under the influence of mercury. He had been already cupped and blistered, and the same means were now repeated with evident relief. On the 3rd of September, though much improved in his general health, the loss of power in the lower extremities continued, with a partial numbness in the upper. The use of a liniment, tonic medicine, and a light nutritious diet were prescribed, but without advantage to the paraplegia; and on the 17th, Mr. Purcell commenced the application of moxas to the loins every other day, and the exhibition of the nux vomica. The latter remedy was at first given in the dose of a quarter of a grain of the extract (prepared in vacuo), every six hours, and a quinine draught was taken thrice daily. On the 30th he was so much improved as to be able to stand and even walk about with the aid of crutches. The nux vomica was gradually and cautiously increased to the extent of three grains every six hours, and three or four moxas were applied daily to the loins, and along the course of the principal nerves of the extremities. From the 14th of October to the 24th the patient took six grains of the extract every six hours, and at the latter date was able to walk as well as at any former period of his life. In the course of a few days he was able to resume his usual employments, the comparatively slight numbness in the upper extremities having been effectually removed by moxas along the course of the principal nerves.—*Medico-Chir. Review*. Vol. xii. p. 203.

36. A young man, an engraver by profession, and subject to dyspepsia, was suddenly attacked about an hour after his evening meal with an affection supposed to be apoplectic. When I arrived he was lying on his back, without motion, wholly unable to see or hear, and showing no sign of sensibility, even when pretty smartly shaken. He had not fainted; for the

respiration and circulation continued; and the absence of stertor, with the natural condition of the pulse, was incompatible with the notion that the disease was apoplexy. Having learned that he had eaten cucumbers and whortleberries at his tea, and that he had afterwards complained of headache with some nausea, I had little doubt that the root of the evil would be found in the stomach. An emetic was accordingly administered, which, after a much longer interval than usual, operated freely, and brought away the undigested berries and cucumbers, which were undoubtedly the cause of irritation. Sensibility was now speedily restored; and after an attack of most violent spasm of the bowels, which was relieved by laudanum and castor oil, the patient recovered his usual health.

37. I was requested to visit a gentleman said to be in a dying state. I found him apparently without sensation, his eyes open and turned up, his hands clenched, and his body alternately motionless, and agitated by sudden and universal tremors, which caused the bed to shake beneath him. He was a stranger, and there was no one present who could give a history of his case. In order to explore into its nature, I placed my hand upon his epigastrium; but scarcely had I touched the skin when he started up as though a bullet had been driven through him. Uncertain whether the coincidence might not be accidental, I repeated the experiment several times, and at each time the slightest pressure was sufficient to throw the whole frame into immediate and violent, though brief convulsions. Sufficient evidence was thus afforded of the seat of the disease, but not of the precise nature of the irritation. As his pulse was active, I bled him freely, and immediately afterwards applied a large sinapism over the region of his stomach. Consciousness was so far restored a few minutes after the bleeding, that upon being asked in a loud voice if he felt sickness or pain in the stomach, he nodded in the affirmative. An injection of assafoetida was now ad-

ministered; and under the united influence of this remedy and the mustard plaister, he revived to some knowledge of his situation, and was able to drink very freely of warm water, which I urged upon him. This soon produced the discharge of a large quantity of acid liquors from his stomach, and restored him for a time to complete consciousness. He now told me that he was subject to gout, of which he had recently an attack in his foot, but had relieved himself by bathing the affected part with hot vinegar. The nature of the case was evident. While he was yet speaking, he was seized with a sudden spasm of the stomach, which threw him into his former state; and this alternation of consciousness and insensibility was repeated several times within the course of a few minutes, each return of pain being so severe as at first to throw the whole nervous system into violent agitation, and then to overwhelm it for a time in complete torpor. I now applied sinapisms to the feet, and gave a mixture of laudanum and the aromatic spirits of ammonia; and at the end of about four hours from the commencement of the attack, left my patient very greatly relieved. A dose of the compound tincture of rhubarb, with a proper regulation of the diet, was afterwards sufficient to complete the cure.—*Medico-Chir. Review*, vol. xii. pp. 251 & 252.

38. A gentleman who came over from Ireland to transact commercial business in town, was seized with apoplexy, with some hemiplegia of the right side, and died in the course of four days. Dr. Hodgkin examined the brain, but no satisfactory morbid appearances were discovered there or elsewhere.

39. Mr. L., æt. 40, of sedentary habits, complains (June 6th, 1817) of pain, heat, and heaviness in the head, weakness of the muscles of right eyelid and right side of mouth, indistinct speech, indigestion, pulse 68—irregular, skin cool, tongue yellowish, fæces dark-coloured. Has suffered from these symptoms for the last four months, has been attacked with epileptic fits within

the last six weeks, and has at times been incoherent. Leeches and cathartics. Next day there was some stupor and occasional vomiting. Blister to the nucha. On the 8th, there was paralysis of the right side of the face; and on the 9th delirium, which symptoms continued, with little alteration, till the 13th, when the ideas were less confused, and the patient more disposed to conversation. On the 15th, there came on strabismus, and on the following day coma; but on the 19th, the patient was so far revived, as to talk of going into the country. On the 20th, however, he was attacked with apoplexy, and died on the morning of the 21st.

Dissection.—The mesentery loaded with fat, and bladder distended with urine. The spleen softer than natural, its peritoneal membrane bears evident marks of previous inflammation. Liver of a natural appearance. Gall-bladder distended with greenish yellow bile. Kidneys covered with fat, and internally the calices surrounded with fat. Lungs and heart natural. Half an ounce of watery fluid in pericardium. Surface of the brain highly vascular. The lateral ventricles considerably enlarged, and in them, at the base of the brain, and in the theca spinalis, are found three ounces of a serous fluid. Plexus choroides pale.

40. Mr. B., æt. 55, a country gentleman, complains (Aug. 9, 1819) of headache, vertigo, heaviness about the head, accompanied by fever, and occasionally by pains in the stomach, nausea, or vomiting; face florid and flushed, heat of forehead great; pulse 96, and strong; palpitation at the heart; tongue yellowish and foul; fæces often morbid in appearance; urine frequently high-coloured, and depositing a pink or lateritious sediment. This gentleman had been accustomed to the use of fermented liquors; his complaint has been considered gouty, and various tonics, cordials, and bitters have been prescribed for it. V. S. ad $\bar{3}$ xij.; cathartics. The head was relieved by the bleeding, and on the 10th, twelve leeches were applied to the temples, with so much relief that he became anxious to

return into the country. On the 13th, however, after riding on horseback, he became gradually attacked with hemiplegia of the left side, for which he was bled, leeches, and purged. Delirium and vomiting succeeded, then stupor, stertorous breathing, and death on the 17th.

Dissection.—Excessive vascularity of the dura mater, both arterial and venous. Veins on the surface of the cerebrum very turgid. Convolutions of the cerebrum remarkably depressed. On making a section of the brain, a preternatural number of red vessels are discovered. In the centre of the posterior lobe of the right hemisphere is found a cavity of the size of a hen's egg, filled with coagulated blood. The walls of this cavity are formed of the substance of the cerebrum, which is softened and of a bright red colour. The blood appears to have been furnished from a number of minute vessels observed on its surface, and not from the rupture of any large vessel, similar to what is noticed on the surface of the intestines in melæna. The edge of the plexus choroides has an hydatid-like appearance. In the ventricles are about three drams of serous fluid, and about six at the base of the cranium and in the theca vertebralis. The cerebellum is preternaturally vascular. The lungs natural. The heart enlarged, and softer than natural, and its right auricle and ventricle filled with a dark-coloured fluid blood. Liver exceedingly vascular. The gall-bladder contains several gall stones. The spleen enlarged, softened, and gorged with dark blood. A large portion of the mucous coat of the stomach near the cardia is preternaturally vascular, some of the vessels have a florid appearance.

41. A. H., a countrywoman, had a fit of apoplexy. She was naturally robust and sanguine, but for some months had an earthy unnatural complexion, was dispirited and complained of sick headache. Four years before this seizure she had a violent inflammatory fever, with pain in the epigastrium, which yielded to copious bleeding and the antiphlogistic regimen.

It was succeeded by symptoms allied to mania. Though free from fever, she talked incessantly, and never slept, but wandered about all night. Her manner was forward and immodest, and the powers of her mind were powerfully excited. She was prompt in her replies, positive in all her opinions, and on all subjects employed a copious eloquence. These symptoms yielded to free purging. After the attack she was insensible, and the right side was motionless, but she frequently lifted the left hand to the head, and the leg of the same side was violently moved. The power of swallowing was gone, but the sphincters were closed. Free bleeding from the external jugular had no effect, and she survived the attack only twenty-four hours.

Dissection.—The dura mater adhered firmly to the cranium. The finer membranes were manifestly inflamed; between them there was an extensive effusion of bloody lymph, which reddened the surface of the cerebrum. The greatest mischief was on the left side of the brain; the anterior half of which was completely injected with blood. A large coagulum, which had evidently proceeded from the rupture of innumerable diseased vessels, filled the left ventricle, and had broken down the thalamus nervi optici of that side, and the corpus striatum. There was serum in all the other ventricles. The cerebellum was surrounded by water, its surface was deeply inflamed, and in its substance there were many apoplectic cells.

42. Mr. F., æt. 72, full and plethoric, of sedentary habits, has been subject (date 1818) for years to indigestion, vertigo, acute headaches, and occasional slight paralytic attacks of the fingers or arms. On the 13th of April he was seized with apoplexy, followed by hemiplegia of the right side, and in a fortnight afterwards he died.

Dissection.—The dura mater extremely vascular, and the veins on the surface of the cerebellum very turgid; the arachnoid membrane is raised from the pia mater by a serous

effusion. Substance of the brain firmer than natural. A considerable number of red vessels is discovered on making a section of the cerebrum. The ventricles are enlarged and distended with a watery fluid. In the middle lobe of the left hemisphere there is a regularly formed cavity, large enough to contain a hen's egg, filled with grumous blood and, its surface of a bright claret colour. On cutting through the cerebellum a small clot of blood is discovered. About four ounces of serous fluid are found in the ventricles, base of the cranium, and theca spinalis. The integuments of the skull, chest, and abdomen œdematous. Omentum fatty. In the lining membrane of the stomach and intestines are several red patches. The bladder thickened and diminished in size, and on its mucous coat are numerous red spots. Lungs healthy. Heart preternaturally large, a portion of the left mitral valve thickened and contracted, and the semilunar valve of the aorta thickened.

43. J. L., æt. 30, weak in intellect and of a spare habit, was for several years employed as an attorney's clerk, and, for some time, was involved in pecuniary difficulties. His appetite was good, but his bowels were constipated, and he was subject to headaches. On the night of the 21st instant, he was attacked with what he called the night-mare, which he ascribed to drinking cold water at bed-time. At ten A. M. on the 22nd, he was seized with general convulsions, followed by stupor, stertorous breathing, and dilatation of the pupils; spirits of turpentine was administered per os et anum, which acted as a cathartic. About five P. M., the convulsions returned with violence; the wrists and ancles were considerably distorted, and the body was bent back, with an inclination towards the right side; the vessels of the head and neck were turgid: the pupils were dilated, the conjunctiva was red, and the breathing stertorous; there was frequent moaning and profuse general perspiration. Thirty ounces of blood were taken from the

jugular vein and temporal artery at nine o'clock P. M. The head was shaved and blistered, and a fetid injection administered. The pulse became small and irregular, and though the turgescence of the vessels of the head subsided, yet the convulsions, stertor, moaning, and dilatation of the pupils continued. Death took place at eight o'clock on the morning of the 23rd of July, about twenty-four hours after the first attack of convulsions. At three P. M., the body was examined. No marks of disease in the abdomen. The superior and lateral portions of the brain were of a dark red colour; there were about two ounces of coagulated blood at the medulla oblongata, and a quantity of turbid serum flowed from the ventricles, and from beneath the arachnoid membrane. Vessels of the pia mater turgid. The walls of the ventricles were dotted with numerous red points. On removing the coagula from the under surface of the brain, the basilar artery was found ulcerated and ruptured, so as to admit a small quill into its canal below and behind the origin of the posterior cerebral arteries, the margin of the orifice was thick, and of a dull yellow colour. The diseased structure did not surround the whole artery, nor was there any appearance of an aneurismal sac. About half an ounce of serum tinged with blood flowed from the spinal canal.—*Med. Chir. Review*, vol. xii. pp. 204—207.

44. David Torrington, on the afternoon of the 27th of June, 1818, drank a quantity of pure rum, supposed about two pints; he shortly became insensible, and was found in that state under a hedge near the West India Docks. A surgeon passing by, bled him, and ordered him to be sent to the London Hospital. When admitted, he was in a state of total insensibility, he had stertorous breathing; frothing at the mouth; dilated pupils, which, however, contracted on holding a candle to the eyes, and a very full and hard pulse. A dram and a half of sulphate of zinc was given, which operated well. At eleven at night, the same symptoms continuing, he was bled again largely,

his head was shaved, and a cold lotion applied to it. On the following morning he was sensible when roused, but was heavy and drowsy. In the course of the day he was well purged, bled again, and kept on a low diet, and appeared to be recovering. On the 30th, he complained of pain in the region of the stomach, and on the 1st of July he became furiously delirious; on the 2nd, he had roving slow delirium, copious perspiration, his strength failed him, he appeared sinking, and about midnight he died. On examination, the vessels of the posterior part of the brain only were found rather turgid; the quantity of fluid in the ventricles was natural, and there was no rupture of blood-vessels. The internal coat of the stomach was inflamed in patches, as also the internal and external coat of the intestines.—*Cooke on Apoplexy*, p. 219.

45. A lady, 74 years of age, was seized with apoplexy. Some years ago she experienced a slight paralytic attack, and has since been often affected with vertigo, faltering in speech, and confusion of mind. When I saw her she was wholly deprived of sense and voluntary motion, her respiration was laborious, and in some degree stertorous. A medical gentleman who had been called in immediately after the accession of the paroxysm, had taken from the arm a very considerable quantity of blood. As the pulse was not materially weakened by this depletion, I ventured to recommend farther bleeding by opening the temporal artery. I desired that mustard cataplasms might be applied to the soles of the feet; that stimulating injections should be frequently administered: and that if the power of swallowing was restored, cathartics should be taken by the mouth. On my return, two hours after these directions had been given, I was informed that blood had been drawn from the temporal artery; that cupping glasses had been applied to the temples; and that very soon after the evacuation of blood by these means, the patient showed signs of returning sensation. I found her in a state of considerable improvement; in a few hours she was able to

swallow ; and she continued to amend so rapidly, that at the end of forty-eight hours she was restored to a degree of health nearly equal to that which she had enjoyed before the attack. —*Cooke on Apoplexy*, p. 309.

46. In one case of apoplexia fortissima, a clyster was injected, which having occasioned five evacuations, the patient in a few hours was rescued from the fit. This apoplexy ended in palsy.

47. In another case, the same remedy was employed with similar success. The patient was apparently almost at the point of death, but after the injection of a clyster, which twice operated largely, he began to speak. A palsy in this case supervened, but the patient recovered both from the apoplexy and palsy.—*Forestus*, lib. x. obs. 69, p. 518; *Cooke on Apoplexy*, p. 317.

48. A patient about 70 years of age, of a spare habit, and debilitated constitution, was affected with vertigo, and pain in the head, confusion of mind, faltering in speech, and strabismus in a very great degree. A large quantity of blood was abstracted by cupping glasses applied to the neck. As the blood flowed, all the symptoms gradually abated, and in a few hours entirely disappeared, and he completely recovered.—*Cooke on Apoplexy*, p. 286.

49. A banker at Paris, who had for a long time been almost covered with a tettery eruption, which had been repeatedly mitigated by blisters and other depuratory remedies, was persuaded to try an external application, which caused the cutaneous affection to disappear, and he was soon afterwards seized with the strong apoplexy. M. Portal was at first afraid to bleed this patient, and ordered for him cordials, sudorifics, blisters, and sinapisms, with the view of restoring the cutaneous humour. As this plan did not succeed, and as the pulse was

hard and full, and the sleep profound, M. Portal bled him in the foot, and with evident advantage. He advised a second bleeding, and some hours afterwards, on the breaking out of a copious perspiration, the patient was cured, excepting that a slight numbness in one of his arms remained.—*Cooke on Apoplexy*, p. 355.

50. Elizabeth Hancock, æt. 65, a woman of embonpoint, was brought to St. Thomas's Hospital. August 8th, 1830. When admitted she was unable to speak; had hemiplegia of the right side, and was very lethargic. The account given respecting her was, that ten days previously, whilst hanging out clothes, she fell down suddenly in a fit of apoplexy, without any premonitory symptoms of the attack. During the ten days before admission she had been gradually improving, but there were still symptoms of pressure on the brain. She was quite sensible to what was addressed to her, though unable to reply. The hemiplegia was complete, and she had considerable loss of sensation; she was cupped on the back of her neck and head to sixteen ounces, a blister applied to the neck, and ordered to take pulv. scam. c. hydr. gr. xv. statim, et hydr. submur. gr. v., 6tis hor. On the 9th she was somewhat improved, but complained of pain in her head, referred to the left side. She explained this by putting up her hand; eighteen leeches were applied to this part, and cold lotion constantly.

10th.—She complained of increase of pain; fifteen leeches were therefore ordered, and her bowels having become greatly purged, she was to take inf. catechu ʒij. urgente diarrhœâ.

11th.—Sixteen more leeches were applied, the head shaved, and a blister to the vertex; during this time she had been improving gradually, and had so far recovered as to utter a few words. On the 13th she was so much better that she was allowed to sit up in a chair, and to have on her clothes. After being in bed a couple of hours, the sister's attention was drawn to her in consequence of her stertorous breathing and fixed open eyes; in fact, she was in a fit; it did not, however,

continue longer than ten minutes: twenty leeches were applied, and aperient medicines given to her, but at six o'clock on the morning of the 14th, another apoplectic attack supervened, during which she died.

Post-mortem examination, seven hours after death.—The surface was much blanched. The calvarium and dura mater being removed, some fluid deeply tinged with blood escaped. A large surface of the left hemisphere was covered with blood effused beneath the arachnoid, and following the course of the middle cerebral artery. A small quantity was also effused external to the membrane; the whole of the hemisphere felt boggy, as if full of fluid. The brain was removed, and the ventricles laid open from the base; this cavity was then found filled with blood, partly fluid, partly coagulated; the whole cerebral surface in contact with which had a soft and ragged texture; the quantity of blood was about half a pound. The branches of the circle of Willis were then removed, in doing which a firm coagulum, the size of a hazel nut, which had been imbedded in the cerebral substance, was drawn away; tracing these branches carefully, a small aneurism was discovered, connected with the middle cerebral artery of the left side, and precisely at the point of its division into branches. To this the coagulum just mentioned was firmly attached, somewhat nearer to the trunk of the artery, but still *in* the aneurism; a rent of about a line and half had taken place, through which doubtless the last and fatal hæmorrhage had occurred. There was not a speck of bone or other diseased appearance in any branch of the arterial circle. No other part was examined.—*Medico-Chirurgical Review*, vol. xiv. p. 234.

51. A female, aged 68 years, entered the Hôtel Dieu, on the 14th June, 1830, for a slight bronchial affection, for which she was treated in the usual manner, and soon recovered. On the 1st of July, this woman, while walking about the wards, suddenly fell down deprived of sense and motion. The pupils were contracted, the face pale, the respiration quick, the pulse

hard and frequent. The case was pronounced, of course, to be apoplexy; and venesection, sinapisms, &c., were ordered. She lingered in a wretched state for twenty-five days, when mortification of the integuments of the back put an end to her existence.

On dissection, there was no turgescence of the vessels of the encephalic membranes. These membranes were rather pale than otherwise. The anterior portions of each hemisphere appeared natural; but on approaching the middle lobes, they were found without consistence, and a certain portion, reduced to a kind of bouillie, where all trace of cerebral texture was lost. There was no mark of inflammation, or even injection in any part of the brain.—*Medico-Chirurgical Review*, vol. xx. p. 229.

52. A female, aged 79 years, of apparently good constitution, had been in the Salpêtrière since the 13th of July, 1830. She was carried to the Hôtel Dieu, on the 25th of April, 1831. She had complained, for a fortnight, of her head on the right side, while there was numbness or sense of formication in the extremities of the opposite side. There was some impediment in her speech. She ate and slept well. The left arm gradually lost its motile power, and the lower extremity was benumbed. The other side possessed motility and sensibility. There was little disturbance in the other functions. For a fortnight or so, the paralysis gained ground, and then she remained hemiplegic for a month or more. Pains then came on in the affected parts—agitation and delirium at night succeeded—the evacuations became involuntary—and death closed the scene.

On dissection, the meninges of the brain appeared gorged with fluid blood, which also flowed freely from the sinuses of the dura mater. There was nothing unusual in the external character of the cerebral mass; but, on penetrating some way into the right hemisphere, a focus of mollescence was discovered, six inches in length and two in breadth. There was no

other organic alteration of any consequence in the brain.—*Medico-Chirurgical Review*, vol. xx. p. 229.

53. A female, aged 87 years, of good constitution, and previously enjoying good health, became suddenly insensible, on the 23rd of February, at ten o'clock in the morning. Hemiplegia of the right side was complete. Examined immediately there was observed some disturbance of the circulation, and some spasmodic movements, and a natural ptialism. The paralysis appeared to commence in the lower extremity, then affected the upper, and lastly the tongue. There were clearly defined intervals between these phenomena, apparently indicating the successive stages of accumulation in the head and spine.

On the 24th there was profound coma, with febrile heat and general reaction.

25th.—The reaction more decided; the patient was able to give some account of her sensations and preceding ailments. She stated that she had had pain in her head, with giddiness and occasional loss of sense for a year past. Sixteen leeches were applied to her neck, and laxatives were given. For some days after this she appeared to get better. Her speech was improved; motion and sensation were, in some degree, restored to the right lower extremity. In the beginning of March, however, her strength declined; all reaction ceased; the tongue became dry. Tonics were tried, but she died on the 10th of March.

The meninges were in their natural state. So did the brain itself appear. On making incisions into its substance, no injection was visible. The parietes of the ventricles, however, were pointed with blood, and the inner surface dark-coloured with the same. The ventricles themselves were greatly distended with a pellucid fluid, amounting to at least six ounces. The third and fourth ventricles were filled with the same kind of fluid. There was no other morbid phenomenon in the head.—*Medico-Chirurgical Review*, vol. xx. p. 230.

54. A female, aged 28 years, of apparently good constitution, but enfeebled by several accouchements, and by the development of a scirrhus ovarium, was seized on the 15th of March last, after some hours' vague complaints, with vertigo, a degree of general insensibility, and complete loss of speech, attended with some convulsive movements of the upper extremities. The pulse was calm and regular; the skin rather cool than otherwise; the breathing slightly accelerated; the expression of countenance much altered. A physician was called in and prescribed; but in a few hours she revived considerably, though there was still much loss of sensibility. She was able to speak tolerably clear. Twenty-four leeches were ordered to the head, and sinapisms to the feet. It was pronounced to be a case of sanguineous effusion in the head. In the evening there was paralysis almost complete of the right side, with some arterial reaction. The pupils were dilated; the speech much embarrassed, but not entirely extinguished. It remained in nearly the same state during the 16th; and on the 17th, paracentesis abdominis was performed, and ten pints of fluid were abstracted. As the water flowed from the puncture, she appeared to regain sensibility, and when the operation was over, she was very sensibly improved. Next day (18th) she made many efforts to speak, but was only able to articulate the word *Amen*. At nine o'clock the same evening, while being transported from one bed to another, she uttered a cry indicative of great pain, and expired five hours afterwards in great agony.

Dissection.—We need not describe the appearances in the abdomen, where a vast ovarian disease existed. There was much serous infiltration throughout the whole body, and this was observed between the meninges of the brain. In the middle part of the left hemisphere there was observed a roundish patch of sanguineous ecchymosis, an inch and a half in diameter, and a quarter of a line in depth. The sinuses and the vessels of the brain were immoderately distended with blood. The cerebral pulp appeared sound. The ventricles

and the spinal canal filled with limpid serum.—*Medico-Chirurgical Review*, vol. xx. p. 230.

55. M. D., a surgeon-dentist, aged 23 years, of good constitution, and in excellent health, was remarkably well on the 4th of April. He dined at six o'clock, and then went out to walk. He suddenly fell down on his face, and died instantaneously. M. Cruveilhier was at hand, but life was entirely extinct. On dissection, the integuments of the head were found injected. On removing the cranium, the dura mater appeared livid; and all the sinuses and veins were gorged with black blood. The substance of the brain itself presented nothing particular.—*Medico-Chirurgical Review*, vol. xx. p. 231.

56. A young woman, aged 21, complained at first of a shivering, and of feeling as if she had been well bruised and beaten. In a day or two the symptoms of fever showed themselves, but yet there was no fixed pain in the head. She was bled and kept on low diet. On the following day there was greater prostration; the pulse was weaker; she complained of pain all over her body, and did not refer it to any particular inward part; her arms, however, if moved, gave her much distress and even sharp pain, like that of rheumatism; and when she was provoked by questions, she began to acknowledge that she felt an uneasiness in her head. On the following day slight delirium and general restlessness, with great prostration, drowsiness, inability to protrude the tongue; a purplish red hue of the face; heat and slight moisture of the skin; frequent, full, but feeble pulse; an occasional cough; an almost complete paralysis of the upper extremities; when they were raised, they fell down if not supported, and no effort was made by the patient; the head, if elevated, rolled down again on the pillow, when the hand was withdrawn; the urine passed involuntarily; she became quite comatose, and died next day.

Dissection.—No serous effusion under any part of the arach-

noid. At the posterior third of the left hemisphere near to the course of the longitudinal sinus, was observed a patch of deep red colour, quite circumscribed, and of about the size of a shilling; the cerebral substance to the depth of two or three lines was involved in this patch, which appeared to be produced by a softening and breaking-down of the substance of the brain, and by being intimately blended with effused blood. When a small stream of water was allowed to play on this patch, an irregular excavation was left, the cerebral matter being washed away; the surrounding substance appeared quite healthy. A few lines distant from this spot, another not larger than the head of a large pin was noticed; and when examined attentively, it was discovered to be a minute clot of blood. On other places of the surface of this hemisphere were many more of these black points, in every respect like the former, and all presenting the mixed characters of ramollissement of the brain, and of hæmorrhage, as if small clots of blood had been infiltrated into the softened cerebral matter. This appearance was most conspicuous at the lower and back part of the hemisphere, where it rested on the tentorium. On the right hemisphere, and also on the cerebellum, one or two similar dark-coloured spots were to be seen. The medullary substance of the brain, the ventricles, thalami, &c., were healthy; vessels not gorged. No other morbid appearances in the head, thorax, or abdomen.—*Medico-Chirurgical Review*, vol. xxi. p. 185.

57. A woman, aged 25, entered the Hospice Cochin on the 9th of May. For six weeks previously she had laboured under dropsical swellings of the limbs, and latterly there was general anasarca. After shivering, followed by heat, slight delirium, and drowsiness, symptoms of more decided cerebral oppression supervened; the patient would not or was unable to answer questions; she did not appear to suffer from pain; the heat of skin was somewhat increased, and the pulse was more frequent than in health; tongue natural; abdomen soft

and yielding. Next day the stupor was more complete ; but yet she could be roused to open her eyelids and answer questions, though indistinctly ; the limbs have lost all spontaneous motion. On the 11th, symptoms worse, dilatation of the pupil ; breathing laborious, as if the muscles of respiration had lost their power. The patient died, soon after, comatose.

Dissection.—The surface of the brain and its investing membranes appeared quite healthy ; but, on separating the hemispheres from each other, the corpus callosum was seen to be studded with minute red points ; it looked as if any white surface had been sprinkled with red paint. On examining these attentively, it was speedily found that they were not produced by simple rupture and effusion, for pressure on the surrounding substance had no effect in squeezing out any oozing of blood ; and there was no vestige of clots ; their true nature was an intimate blending of the medullary substance of the corpus callosum with the colouring matter of the blood. From their minuteness, it was not very easy to ascertain whether ramollissement, or any alteration of the cerebral matter was existent or not. With the exception of a few scattered red spots on the left thalamus opticus, similar to those just described, no other morbid appearance was detected anywhere.—*Medico-Chirurgical Review*, vol. xxi. p. 187.

58. A woman, aged about 30, of a full habit, some years before her death had been affected with symptoms in the head, accompanied by impaired speech, and partial loss of recollection. Some effects of this attack had continued for a considerable time, especially in her speech, but by degrees she had perfectly recovered, and enjoyed excellent health for a long period preceding the attack now to be described. She was stooping over a washing tub, when she was seized with a violent fit of sneezing ; she almost immediately became insensible, and would have fallen down had she not been observed and supported by some persons standing by her, who carried

her to bed in a state of perfect apoplexy. All the usual remedies were employed in the most active manner without the least effect in alleviating any of the symptoms; she lay with all the symptoms of the most perfect apoplexy, and died on the following day. On inspection, no vestige of disease could be discovered in the brain or in any other organ.—*Abercrombie on Diseases of the Brain*, p. 210.

59. A gentleman, aged 24, had been observed for some days to be dull and drowsy, and he frequently complained of his head. Not having appeared at his usual time one morning, his friends went into his room, and found him lying across his bed, half dressed, in a state of perfect apoplexy. The attack was evidently recent; and it was supposed that he had been seized while he had stooped over his basin in washing. His face was rather livid, his breathing stertorous, his pulse slow, and of good strength. All the usual remedies were employed with assiduity, but through the day there was no change in the symptoms. In the course of the night he recovered considerably, so as to know those about him; but in a short time after he relapsed into coma, and died early on the following day, little more than twenty-four hours after the attack.

Inspection.—There was a slight turgescence of the vessels on the surface of the brain; no other appearance of disease could be detected after the most careful examination. All the other viscera were in a healthy state.—*Abercrombie on Diseases of the Brain*, p. 211.

60. A lady, aged 50, had been liable for many years to attacks of cough and dyspnoea, which were generally relieved by opiates and blistering. On the 20th of December, 1816, she was seized with one of these attacks in the ordinary form. On the 22nd she was better, though her breathing was still considerably oppressed. On the morning of the 23rd, she complained of headache, and wished not to be disturbed. Soon after this she appeared to her family to fall into a sound

sleep; but some time after, it was found to be perfect apoplexy, from which nothing could rouse her, and she died about five o'clock in the afternoon. I saw her only an hour before her death; she was then in perfect coma, her lips livid, her breathing quick and oppressed, and her pulse frequent and feeble.

Inspection.—On the surface of the brain the veins were turgid, and the substance, when cut into, exhibited a remarkable degree of vascularity; there was no other appearance of disease. The lungs were distended, and much loaded with thin mucus, but their structure was tolerably healthy. The other viscera were sound.—*Abercrombie on Diseases of the Brain*, p. 211.

61. A lady, aged 45, had for three months before her death been affected with the following symptoms,—nausea, and a peculiar uneasy feeling about the stomach, particularly after meals, a feeling of distention of the abdomen, costiveness of the bowels, and anasarca of the feet and legs. The appetite was tolerable, and the pulse natural, but from being remarkably strong and active, she became feeble, sallow, inactive, and listless. A variety of practice was employed for three months with little benefit; the anasarca gradually extended; effusion took place in the abdomen, and there was much reason to suspect that it had also taken place in the thorax; the pulse, however, continued of natural frequency and good strength. On the evening of the 18th of May, 1816, she was observed to talk hurriedly and incoherently. On the morning of the 19th, she was in a state of stupor, from which at first she could be partially roused; but soon after mid-day it increased to perfect coma. She then lay in a state of perfect apoplexy, with stertorous breathing and much moaning, the face rather pale, the pulse 72, and of good strength, and she died on the morning of the 20th. The catamenia had been regular, except at the last period, which should have happened about the 12th of May.

Inspection.—No disease could be detected in the head after the most careful examination. There was considerable effusion both in the thorax and the abdomen. In the heart there was considerable hardness about the root of the tricuspid valves. No morbid appearance could be discovered in the other viscera.—*Abercrombie on Diseases of the Brain*, p. 212.

62. A young lady, after appearing for one day very heavy and disposed to sleep, fell into a perfect state of coma, which was interrupted only by occasional attacks of general convulsions. Without any change in the symptoms, she died on the third day. After the most minute examination, no morbid appearance could be discovered in the brain.—*Abercrombie on Diseases of the Brain*, p. 213.

63. A gentleman, aged 80, but vigorous and active, and of rather a spare habit, about the 9th of January, 1813, began to be affected with loss of recollection, indistinctness of speech, and flushing of the face. He appeared to have at times a weakness of the right arm, being observed occasionally to drop things from the right hand, but he did not admit that he felt any weakness of it. He complained neither of headache, nor giddiness, but said he was weak, and did not feel himself right; the pulse was natural, and of good strength. After a bleeding from the arm, followed by purgatives and a regulated diet, he seemed to be much improved; he had in a great measure recovered his recollection, and had lost the flushing of his face, and his speech was much more distinct. He walked out regularly, and his step was firm and vigorous. Soon after, however, he began to have a recurrence of confusion of thought, particularly on the 27th, when, in endeavouring to write a letter, he was obliged to relinquish the attempt. He complained that he could not make sense of it, nor spell the words; the writing was scarcely legible, and the lines were very crooked. On the 28th he seemed much better. On the following night he slept ill; got up about four o'clock in the

morning, and said he felt restless and uneasy; he walked about his room for some time, and then returned to bed. Having soon after this become quiet, his family did not disturb him till between eight and nine o'clock, when he was found in a state of perfect apoplexy, his pulse 80 and full, the appearance of the countenance natural; he was incapable of swallowing, and in a state of complete insensibility, except that he occasionally moved his right hand. He was largely bled, after which he became exceedingly pale, and the pulse continued for a considerable time very weak, but without the smallest abatement of the coma. The other usual remedies were then employed without any benefit. In this state of perfect apoplexy he lay for seven days, during which time there was very little change in the symptoms. He frequently moved his right arm and leg, but not the left; he occasionally scratched a herpetic eruption, which was on the thigh, and several times moved his night-cap. Once or twice he was observed to open his eyes slightly for a few seconds; the pupil was natural, and contracted when a candle was brought near it. He passed his urine in bed. He never swallowed a drop of anything. His pulse at first varied from 80 to 100, but afterwards rose to 120. In this state of perfect apoplexy he died on the 5th of February. A few days before his death, a glandular swelling appeared on his neck, from which he evidently felt pain, as he drew away his head when it was touched.

Inspection.—A good deal of fluid escaped when the cranium was opened; there was considerable effusion under the arachnoid, and in the ventricles; the quantity collected was probably from three to four ounces. No other morbid appearance could be detected in any part of the brain.—*Abercrombie on Diseases of the Brain*, p. 214.

64. A gentleman, aged 70, of a florid complexion, but rather infirm in his limbs, had suffered repeated attacks of loss of recollection, which were said by his family to resemble fainting fits.

At the commencement of the illness of which he died, he fell down suddenly, deprived of sense and motion. After some time he recovered from this state of perfect insensibility, but his speech was now inarticulate; he had lost the power of his limbs, and his right eye was distorted outwards. He was then confined to bed; at times incoherent, at other times more distinct, but always much oppressed, bordering upon coma; his speech continued very inarticulate, and his pulse was generally about 100. His strength sunk gradually without any particular change in the symptoms; and he died at the end of five weeks.

Inspection.—The ventricles of the brain were found distended with colourless fluid, and there was a considerable quantity under the arachnoid. There was no other morbid appearance.—*Abercrombie on Diseases of the Brain.* p. 215.

65. A man, aged 41, of a very full habit, had been for some time affected with cough, dyspnoea, and anasarca of the legs, when he became one day suddenly incoherent, and soon after fell into coma. His breathing was much oppressed; his face livid and turgid; the pulse somewhat frequent. The coma was of that kind out of which he could be roused with difficulty so as to answer questions slowly, and heavily, and often incoherently. He died on the third day.

Inspection.—Much fluid was found in the ventricles of the brain. The lungs were much loaded with blood, and there was considerable effusion in the cavity of the pleura. In the heart the foramen ovale was open, of the size of a goose quill.—*Abercrombie on Diseases of the Brain,* p. 216.

66. A gentleman, aged about 70, a man of talent and of genius, had been valetudinary and hypochondriacal for upwards of 30 years, having been affected with a variety of uneasy sensations in the stomach, as indigestion, a sense of tightness across the lower part of the abdomen, occasionally attacks of dysuria. In the beginning of 1817, he became

feeble, listless, and unable for any exertion, either of body or mind; during the day he was drowsy, but his nights were restless and feverish. His countenance was pale and sallow; his pulse from 76 to 84; his tongue slightly loaded; his bowels generally costive, but easily moved by medicine, the operation of which was sometimes followed by diarrhœa. A variety of remedies were employed without benefit. He passed the summer without improvement, and in the winter his complaints were aggravated. They consisted as formerly of heaviness, feebleness, and want of sleep, to which were now added a troublesome cough, and constant pain in the lower part of the abdomen, with strangury. His appetite failed; his pulse increased in frequency; and he became daily more and more feeble and emaciated. In the beginning of March, 1818, he was confined to bed; his strength then sunk gradually, and he died on the 14th, having retained his memory and all his faculties entire till within a few hours of his death. He had never complained of headache or giddiness, and never had any paralytic or convulsive affection.

Inspection.—A copious effusion of transparent fluid was found over the whole surface of the brain under the arachnoid membrane, which, in various places, particularly at the posterior part, elevated that membrane in the form of small bladders, and separated some of the convolutions from each other, so as to form depressions on the surface of the brain. The ventricles were also distended with fluid, but not much enlarged. The brain was in other respects sound; the viscera of the abdomen were healthy. The bladder was contracted and thickened, but there appeared to be no disease of the prostrate gland or the urethra.—*Abercombie on Diseases of the Brain.* p. 216.

67. A clergyman, aged 55, while delivering his sermon during the morning service of Sunday, 13th May, 1827, was observed to stop and put his hand to his head; he then attempted to go on, but talked indistinctly, and had evidently lost his recol-

lection; he supported himself by grasping the side of the pulpit. Assistance being immediately given him he was taken out, and at this time was speechless and paralytic of the right side, but appeared to be sensible. He became rapidly more and more oppressed, and, in about twenty minutes from the commencement of the attack, had become entirely comatose. From the time when he was taken down from the pulpit, he was pale and cold, and his pulse extremely feeble; and this state continued when I saw him, about an hour after the attack; so that, though a vein was opened, very little blood could be obtained. Gradually the circulation rallied, and, in another hour a full bleeding was obtained without any relief. All the other usual remedies were employed without benefit. From the time when the coma took place, there never was the slightest abatement of it; he lay with his eyes shut, his countenance pale and sallow, but placid and without distortion; his pulse weak, the power of swallowing lost, the breathing at first stertorous, afterwards slow and oppressed. He lived in this state till Monday at mid-day, about twenty four hours after the attack.

Inspection.—There was extensive extravasation of blood in the left ventricle, which had passed partly into the right by laceration of the septum. It seemed to have made its way into the ventricle from the substance of the brain, on the outer and anterior part, where there was a large irregular lacerated cavity, full of coagulated blood, and communicating with the ventricle; all the arteries of the brain were extensively ossified.—*Abercrombie on Diseases of the Brain*, p. 224.

68. A man, aged 32, of a very full habit, while sitting by the fire on the evening of the 3rd September, 1804, was suddenly seized with violent headache, followed by vomiting. After a few minutes, he began to talk incoherently, and soon after fell down in a state of insensibility, accompanied by a slight convulsion. His face was extremely pale, his body cold, and his pulse scarcely to be felt. From this state, which re-

sembled syncope, he passed gradually into the appearance of apoplexy; and, three hours after the attack, his breathing was stertorous, the body of natural heat, the pulse 72, and of good strength. The face was still pale, he had frequent vomiting, and was incapable of swallowing, and there had been no diminution of the coma. He now lay in a state of profound coma, and died twenty-nine hours after the attack, without any change in the symptoms, except that, during the last twelve hours, the pulse varied from 100 to 112. Large bloodletting and the other usual remedies had been employed without the least benefit.

Inspection.—All the ventricles of the brain were found distended with coagulated blood, which appeared to have burst into them from an irregular lacerated opening in the substance of the brain.—*Abercrombie on Diseases of the Brain*, p. 225.

69. A gentleman, aged 46, of short stature, full flabby habit, and sallow complexion, a literary man, and very sedentary, while speaking in a public meeting, on the 28th April, 1807, was seized with an uneasy sensation in his head, "as if his head would have burst," or "as if the brain had been too big for the skull." This feeling soon went off, and he continued his speech; but when he had finished it he left the room, and felt himself extremely unwell. He had cold shivering, nausea, and repeated vomiting; complained of headache and faintness; his face was pale, and his pulse feeble. After some time he was able to walk home, where I saw him at nine P. M., an hour or more after the attack. He then complained of violent pain in the right side of his head, which came on in paroxysms, and, in the intervals, he was much easier; he had nausea and repeated vomiting; he felt himself cold and faint; his face was pale and sallow; his pulse weak and rather frequent; he was quite sensible, but much oppressed, and answered questions very slowly. He was immediately bled from the arm, and, the pulse improving under the bleeding, it was continued to about thirty ounces, but without relief. He

became gradually more and more oppressed, and by eleven P. M., had sunk into coma, with stertorous breathing, and complete insensibility. In this state he continued till six o'clock on the following morning, when he died. More blood had been taken from the temporal artery, and the other usual remedies employed without the smallest benefit. During the last six hours of his life, the pulse varied exceedingly, being sometimes slow and oppressed, sometimes frequent and full, and the transitions from the one state to the other, being very sudden; a short time before death it was strong and frequent. The pupil of the eye had retained its natural appearance, and no paralytic symptoms were observed in any period of the attack.

Inspection.—A large quantity of coagulated blood was found spread over the surface of the brain, under the dura mater, in all directions, chiefly on the right side. The origin of it was evidently from the substance of the right hemisphere, from which it had burst outwards by a large ragged opening. This opening communicated with a cavity in the substance of the hemisphere, which also was full of coagulated blood. Large coagula were likewise found under the base of the brain, around the cerebellum, and about the upper part of the spinal cord. In the ventricles there was about an ounce of serous fluid.—*Abercrombie on Diseases of the Brain*, p. 226.

70. A lady, aged 70, healthy and active for her years, had complained for a day or two of headache, but without being confined, or her health otherwise affected, till the evening of the 7th August, 1816, when she suddenly screamed out from violent headache, vomited, and then fell down in a state resembling syncope; her face was extremely pale, and her pulse scarcely to be felt; and there was some slight appearance of convulsion. She recovered in a few minutes and went to bed. Through the night she was restless, vomited repeatedly, and three or four times fell into a kind of fainting fit, of a few minutes' duration. In some of these she was reported to have made a gurgling noise in her throat, and to have shown some

convulsive motions of the arms; in the intervals she was quite sensible, and complained of headache. About eight o'clock in the morning of the 8th, she sunk into coma. I saw her for the first time about ten; she was then completely comatose; breathing stertorous; face rather pale; pupil contracted; pulse of good strength and a little frequent. The usual remedies were employed, and in the evening she had so far recovered, that, when raised up in bed, she took into her hand a glass containing some purgative medicine, and drank it. She seemed to attempt to speak, but could not; and soon after relapsed into perfect coma, pulse at night 112; there seemed to be no paralysis. (9th.) Continued in perfect coma, and died at four in the afternoon.

Inspection.—In the anterior lobe of the right hemisphere of the brain, there was a cavity containing a mass of coagulated blood, the size of a small hen's egg. From this cavity the blood had burst a passage through the substance of the brain downwards, and had spread in all directions under the base of the brain, and upwards on both sides, betwixt the dura mater and the arachnoid, to such an extent, that portions of it were found on the upper surface of the brain on both sides of the falx. The substance of the brain surrounding the cavity was soft, and much broken down. There was nothing in the ventricles, and all the bloodvessels appeared remarkably empty.—*Abercrombie on Diseases of the Brain*, 227.

71. A gentleman, aged 18, previously in good health, after using rather violent exercise in the forenoon, had returned home before dinner, and was sitting near the fire, when, without any warning, he started up, pushed his chair backwards with violence, exclaimed "Oh, my head!" and instantly fell on the floor insensible, and slightly convulsed. I saw him within ten or fifteen minutes after the attack. By that time, he had recovered his recollection, was sitting on a chair, and was quite distinct. His face was extremely pale, and his whole body cold and shivering; he complained of severe headache, and his

pulse was weak and rather frequent. Bloodletting was immediately employed, and his pulse improved under it. It was repeated after a few hours, with the addition of purgatives, and the other usual remedies. The coldness and paleness went off after some time, and he then complained only of severe headache, with a feeling of stiffness of his neck, and pain extending downwards along the cervical vertebræ; his pulse was rather frequent and of good strength. He continued in this state for two days, the headache varying very much in degree, and frequently complained, chiefly of his neck; his pulse was frequent, 120 or more, and of good strength; the other functions were natural; he was quite distinct; had the use of all his limbs, and could get out of bed with little assistance, and sit up a considerable time. On the third day he began to be more oppressed, and a little confused and forgetful; the other symptoms as before. On the fourth, he sunk gradually into coma, and died on the fifth. His pulse had continued from 120 to 140; there had been no paralytic symptom; but on the fifth day, there was repeated convulsion. Bloodletting and all the other usual remedies had been employed without benefit.

Inspection.—All the ventricles of the brain were completely filled with coagulated blood. In the substance of the left hemisphere there was a cavity formed by laceration of the cerebral substance, filled also by the coagulum, and communicating with the ventricle. There was no other morbid appearance.—*Abercrombie on Diseases of the Brain*, p. 229.

72. A lady, aged 56, enjoying good health, except occasional disorders in the stomach, on Tuesday, the 30th July, 1816, walked out in perfect health; had gone but a very short distance, when she was seized with violent pain in the head and giddiness; soon after, she lost her recollection and fell down. She very soon recovered her recollection, and was carried home, being unable to stand. She was then seen by Mr. White, who found her pale and faint; the pulse 70, and weak.

She was a little incoherent, complained of severe headache, and had repeated vomiting. The vomiting recurred frequently for two days, and then subsided; the severe headache continued a week. During this period, she was generally confined to bed, but was sometimes able to sit up for a short time; her face was pale; her pulse from 70 to 76, and rather weak; she had some appetite, but bad sleep. She had no paralytic symptom, and made no complaint except of the constant pain of her head, which was always referred to the back part. At the end of the week, this pain became much less severe; she then complained chiefly of pain in the back and limbs, and some dysuria; her pulse was as formerly, and her mind entire. In this manner she passed another week, still confined to bed, but towards the end of the week, she appeared to be much better. On Tuesday, 13th August, exactly a fortnight from the first attack, she was suddenly seized with violent pain in the head, chiefly referred to the back part of it; in less than an hour she became comatose; and in three hours more was dead. The face had still been pale and the pulse natural. I did not see this patient during her life, but was present at the examination of the body.

Inspection.—In the substance of the anterior lobe of the right hemisphere of the brain, there was a cavity filled by a coagulum of blood, the size of a hen's egg. From this cavity a lacerated opening led into the right ventricle, and all the ventricles were completely filled by coagulated blood. A thin stratum of blood was also found under the base of the brain, which seemed to have escaped from the ventricles, by forcing a passage under the posterior pillars of the fornix. Around the cavity in the right hemisphere the substance of the brain was much softened and broken down. Both the kidneys were unusually vascular; about the right, there was a remarkable turgescence of veins, and an appearance of extravasated blood in the cellular membrane behind it.—*Abercrombie on Diseases of the Brain*, p. 230.

73. A lady, aged 40, of a spare habit, on the 15th May, 1811, at two o'clock P. M., was suddenly seized with headache, accompanied by vomiting and diarrhœa; and at the same time began to talk incoherently. She continued to talk incoherently for two hours, and then sunk into coma. I saw her at five; she was then in a state of perfect coma; face pale; the skin rather cold; the breathing soft and natural; the pulse 65, soft and rather weak. During the afternoon she had frequent vomiting and repeated diarrhœa; no other change took place in the symptoms. Full bleeding was employed, and a blister on the head; but she was incapable of swallowing. (16th, 17th, and 18th.) She continued in a state of perfect coma; never opened her eyes, nor showed the least sensibility, except that she drew away her arm with violence when she was bled. She frequently moved all her limbs, and occasionally turned in bed. The pupil contracted a little when a candle was brought near it; the face was sometimes a little flushed, but generally pale. The pulse was from 70 to 80, and of good strength. There had been no return of the vomiting or diarrhœa after the 15th. Bleedings, both general and topical, were employed, with purgatives, &c. On the evening of the 18th, she came out of the coma rather suddenly, like a person awaking from sleep; looked around her, put out her tongue when desired, and took what was offered to her; she also talked a little, but incoherently. (19th and 20th.) Much incoherent talking; appeared at times to understand what was said to her, but could give no account of her feelings, only said, "she was very bad;" pulse from 70 to 80. (21st and 22nd.) Incessant talking and delirium; at times unmanageable and attempting to get out of bed; at these times the face was flushed, at other times it was pale; pulse varying from 90 to 120, weak and irregular; appeared to be blind, but had the use of all limbs. (23rd.) Highly delirious and maniacal. (24th, 25th.) Became calm and manageable, and at times very weak. Pulse small and feeble, skin cold, with a clammy sweat; appeared at times to see and to know those about her. (26th.)

Relapsed into coma; lay with her eyelids half shut, and the eyes distorted outwards; pulse from 80 to 100, and rather weak; face pale; was incapable of swallowing. Continued in a state of perfect coma on the 27th and 28th, and died in the afternoon of the 29th; the pulse had continued about 90.

Inspection.—All the ventricles of the brain were full of dark-coloured fluid like coffee. In the substance of the right hemisphere, there was a cavity, containing a coagulum of blood, the size of a hen's egg. This cavity communicated with the ventricle, and the substance of the brain immediately surrounding the cavity was very soft and much broken down. In the left hemisphere, at its upper and posterior part, there was a cavity the size of a large walnut. It contained a dark-coloured matter, which appeared to be coagulated blood, but considerably changed in its appearance, being firmer in its texture than recent blood, and of a brownish colour, mixed with portions of a lighter colour, which appeared to be diseased cerebral substance. The substance of the brain surrounding this cavity was much softened and broken down.—*Abercrombie on Diseases of the Brain*, p. 231.

74. A gentleman, aged 55, of a thin spare habit, had, about six months before his death, an attack of hemiplegia, which, after the usual treatment, subsided gradually. On the 10th of October, 1819, he complained suddenly after dinner of giddiness and sickness; he went into another room, where he was found a few minutes after, supporting himself by a bed-post; he was then confused and pale. Being put to bed, he soon became partially comatose, with muttering and frequent attempts to speak. I saw him more than an hour after the attack. He was then pale and sallow, pulse soft, languid, and rather slow. His eyes were open, but he did not seem to comprehend what was said to him. A vein was opened, which bled very little, circulation appearing extremely languid. Some time after, he was bled again by Dr. Aitkin, when the

blood flowed more freely, but without relief. He became completely comatose, and died about three o'clock in the morning.

Inspection.—In the lateral ventricles there was a considerable quantity of bloody serum; the third and fourth ventricles were full of coagulated blood. The arteries of the brain were in a great many places in a remarkably diseased state, being extensively ossified; and there was in many places a singularly diseased state of the inner coat of the artery. It was much thickened, and of a soft pulpy consistence; and large portions of it could be squeezed out when a piece of the artery was compressed between the fingers.—*Abercrombie on Diseases of the Brain*, p. 234.

75. A man, aged about 35, keeper of a tavern, and addicted to the constant use of ardent spirits, had been drinking to intoxication during the night betwixt the 12th and 13th of July, 1816; and, about seven o'clock in the morning, was found lying in a state of violent convulsion. No account could be obtained of his previous state, except that, during the evening he had drunk a very large quantity of whiskey, and that, when he was last seen about three o'clock in the morning, he was walking about his house, but unable to speak. He was seen by Dr. Hunter, at a quarter before eight. He was then lying on his left side, in a state of perfect insensibility, with laborious breathing; saliva was flowing from his mouth; his eyes were much suffused, and greatly distorted; the cornea of both being completely concealed below the upper eyelid; pulse 120, full and soft. While Dr. Hunter stood by him, he was again seized with convulsion; it began in the muscles of the jaw, which was drawn from side to side with great violence, producing a loud jarring sound from the grinding of the teeth. The spasms then extended to the body and extremities, which were first thrown into a state of violent extension, and then convulsed for one or two minutes; they then subsided, and left him as before in a state of perfect in-

sensibility. Similar attacks took place four times, while Dr. Hunter remained in the house, which was about half an hour; and he expired in another attack of the same kind about ten minutes after. Bloodletting, and every other remedy that the time admitted of, were employed in the most judicious manner.

Inspection.—On removing the skull-cap, an appearance was observed on the surface of the dura mater, of coagulated blood in small detached portions. These appeared to have been discharged from small glandular-looking elevations on the outer surface of the dura mater, which were very vascular, and highly gorged with blood. There were depressions on the inner surface of the bone, which corresponded with these bodies. On raising the dura mater, there came into view a coagulum of blood, covering and completely concealing the right hemisphere of the brain; it was about two lines in thickness over the middle lobe, and became gradually thinner as it spread over the anterior and posterior lobes, and dipped down below the base of the brain. The coagulum being removed, measured about 3v. On the surface of the left hemisphere, the veins were turgid with blood; on the surface of the right, they were entirely empty; but the source of the hæmorrhage could not be discovered. There was no fluid in the ventricles, and no other disease was discovered. The stomach being carefully examined, was found to contain nothing but air and some healthy mucus.—*Abercrombie on Diseases of the Brain*, p. 235.

76. A gentleman, about 63 years of age, tall and slender, and of temperate habits, was seized with apoplexy on the morning of the 2nd of May, 1822. He was promptly relieved by bleeding, continued well through the day, and, on the morning of the 3rd, appeared free from complaint. About two o'clock, however, there was a return of the attack, when he was again bled copiously, but without the effect of restoring consciousness. He was now seen by Dr. Barlow, and all the usual remedies were employed in the most active manner without relief. On the 4th, he was still comatose, and con-

tinued so till ten o'clock at night, when consciousness returned, but continued only for a very short time. On the 5th, he had an interval of recollection, which lasted three hours; and he was again sensible for about a quarter of an hour in the evening. He had a similar interval for about an hour and a half on the 6th, but on the 7th was comatose nearly the whole day. On the 8th, there was a slight return of consciousness in the morning; and towards the evening he was sensible for several hours. During these changes, the bowels had been fully opened, the pulse had continued about 72, and soft, and no paralysis of any limb had been observed. On the 9th, he was still lethargic, with some stertor; but, after topical bleeding, and the operation of a purgative, he was much relieved; passed a quiet night, and on the morning of the 10th he was quite sensible. It was now first observed that he had lost the sight of the right eye, which was distorted outwards. On the 11th, he lay with his eyes shut, but took food, and answered questions intelligibly when he was spoken to. On the 12th, he was lethargic, but capable of answering questions when he was roused; and this state continued on the 13th. On the afternoon of that day, there was an increase of stupor, with difficulty of swallowing. He was again partially relieved by leeches, a purgative, and a blister to the neck, but the relief was only temporary. He became gradually more comatose, and died early on the 16th.

Inspection.—A copious extravasation of blood was found extended over the surface of the brain; it was closely adherent to the dura mater, and could be peeled off like a membrane. The substance of the brain was healthy. There was no effusion in the ventricles.—*Abercrombie on Diseases of the Brain*, p. 236.

77. A woman, aged about 70, a midwife, of a full habit and short stature, while sitting by the bed of a lady whom she was attending, suddenly exclaimed, "I am gone!" and almost immediately fell down in a state of coma, with some vomiting.

She lay in a comatose state, without any change in the symptoms for forty hours, and then died.

Inspection.—A coagulum of blood, the size of a pigeon's egg, was found in the right lobe of the cerebellum. There was no other morbid appearance.—*Abercrombie on Diseases of the Brain*, p. 238.

78. A private in the 10th Hussars, of a spare habit, about a month before his death was attacked with a pain in the back of his head, for which a blister was applied, and the pain soon went off. On the 22nd of July, 1819, he was seized with giddiness and fell down; on being raised he vomited, and complained of violent headache and faintness, but was quite sensible; he was very pale, and his pulse was slow and languid. Being carried to the hospital, he continued in the same state; asked for cold water, which he swallowed, and seemed relieved of the faintness, but continued very pale. In a few minutes his eyes became fixed; he drew deep inspirations, and in two minutes more was dead. From the moment of seizure, he did not move either the upper or lower extremities.

Inspection.—Nothing unusual was discovered in the brain. On raising the tentorium, the vessels of the cerebellum appeared very turgid. On removing the cerebellum, a coagulum of blood of about two ounces was found under it, and surrounding the foramen magnum.—*Abercrombie on Diseases of the Brain*, p. 238.

79. A gentleman, aged about 50, was for several years affected with complaints in his head, which assumed a great variety of characters. He had at first attacks of giddiness and headache, with loss of recollection and impaired speech. These occurred from time to time, and went off without leaving any bad consequences. After a year or two, the symptoms became more permanent, and he had violent paroxysms of pain, which at one time were much relieved by arsenic. He then

had attacks bordering upon mania, with loss of recollection for several days. Afterwards he had epileptic attacks, alternating with these maniacal paroxysms. He next was affected with attacks of stupor of various duration. The disease went on in this way for several years; and he died at last in May, 1820, after an apoplectic attack, which continued eight or nine days.

Inspection.—Connected with the fatal attack, there was a coagulum of blood, the size of an egg, in the substance of the right hemisphere. The only other morbid appearance was a very remarkably diseased state of the whole arterial system of the brain. It was most extensively ossified, with a thickened and very diseased state of the inner coat of the arteries, and partial separation of it from the other coats in many places. Scarcely any branch could be traced through the whole brain entirely free from disease. The vertebral arteries were also much affected, especially the left, which was much enlarged, and its coats thickened, ossified in spots and brittle.—*Abercrombie on Diseases of the Brain*, p. 242.

80. A lady, aged 42, was of a melancholy temperament, and had been subject to headaches from early life. About ten years before her death she lost her husband under circumstances of peculiar distress, and from that time confined herself to the house, and laboured under the greatest dejection of mind. She was liable to frequent attacks of bilious diarrhœa, and her old headaches became more constant and more severe. In one of these attacks she became apoplectic and died.

Inspection.—There was turbid effusion betwixt the arachnoid and pia mater, and the whole surface of the brain was blood-shot. The venous system of the brain was diseased after an unusual manner. There was a deposition of a firm yellowish-white substance between the lining and outer coat of the veins; it was universal all over the brain, giving to the veins a mottled or rather ribbed appearance. The appearance of the whole of the arterial system was precisely the same as the

venous, and both the arteries and veins were thicker, but more fragile than usual. The medullary portion of the brain was more than usually vascular; on the inner side of the posterior horn of the left lateral ventricle, there was an irregular cavity about an inch in length, and half an inch in breadth. The portion of the brain which formed the walls of the cavity was much diseased, soft and yellow; its structure was destroyed, and it was penetrated by a number of enlarged and unsupported vessels. The left choroid plexus contained an hydatid, the size of a large pea.—*Abercrombie on Diseases of the Brain*, p. 243.

81. A woman, aged 70, of a spare habit, and thin and withered aspect, having walked out in her usual health, fell down in the street, speechless and paralytic on the right side. I saw her four or five hours after the attack. She was then much oppressed, but not entirely comatose. She was completely speechless and paralytic; her pulse about 96, and of tolerable strength. She was bled to fifteen ounces; purgative medicine was ordered, with cold applications to the head. On the following day she was considerably improved both in speech, and the motion of the right side; but, having become rather worse towards night, she was again largely bled, and purgative medicine was continued. From this time she improved rapidly. At the end of a week she was able to walk with little assistance, and in a few days more was restored to perfect health.—*Abercrombie on Diseases of the Brain*, p. 291.

82. A gentleman, aged 70, of a spare and feeble habit, and very infirm from frequent attacks of asthma, without any warning, fell from his chair on the floor in a state of perfect apoplexy, accompanied by violent convulsion. When I saw him, an hour after the attack, he was still in a state of perfect coma; the convulsion had recurred at short intervals, and had affected chiefly his arms and his face. His face was pale, his pulse was of good strength and a little frequent. He was

largely bled from the arm ; and an active purgative was given, assisted by a purgative enema, and cold was applied to the head. The convulsions continued for some time to recur with great violence ; they then became less severe, and at length ceased about three hours after the attack, leaving him in a state of coma. But the purgative having soon after operated freely he recovered his recollection. Next day, he complained of headache, and took more purgative medicine ; and after a few days more he was in his usual health.—*Abercrombie on Diseases of the Brain*, p. 292.

83. A lady, aged 82, on the morning of Sunday, 8th of March, 1818, complained of headache, but went to church. While in church she lost her recollection, talked incoherently, and was brought home with difficulty, being unable to stand. She was still incoherent, and partially comatose ; and when put to bed was seized with violent convulsion, which affected chiefly her face and the left side of her body. The convulsions recurred frequently, leaving her in the intervals in a state of profound coma, and the left side appeared to be paralytic. The pulse was of good strength, and a little frequent. She was bled to twenty ounces ; cold was applied to her head, and an active purgative was given as soon as she could swallow. On the following day there was little change ; more purgative medicine was given. On the 10th the coma was diminished, but it was succeeded by much unmanageable restlessness with incoherence and some convulsion ; pulse 112. More purgative medicine was given ; and small doses of the tartrate of antimony seemed to be very beneficial. On the 11th there was little change, but on the 12th she was much improved, began to know her friends, and her pulse was coming down. In a few days more she was in her usual health, and lived for several years. This lady had also suffered an apoplectic attack in 1814.—*Abercrombie on Diseases of the Brain*, p. 292.

84. A man, aged 70, tall and of a spare habit, and rather

infirm, 10th April, 1815, lost his recollection, walked unsteadily, without knowing whither he was going, and could not be made to comprehend that he was ill. He was put to bed, but insisted upon getting up again, staggered a few steps, and then fell down on the floor in perfect apoplexy. I saw him about an hour after the attack, when he was still in a state of profound coma; his pulse a little frequent and of good strength. Being bled to twenty-five ounces, he became sensible, and took purgative medicine, and his head was shaved and blistered. After three hours he relapsed into coma. He was then bled again to fifteen ounces without any immediate relief, but, the purgative having soon after begun to operate briskly, he was gradually relieved, and in a few days was free from complaint.—*Abercrombie on Diseases of the Brain*, 293.

85. A farmer, in the neighbourhood of Edinburgh, accustomed to drink freely, was invited to the funeral of a friend. According to custom, he took a dram before he went out; and at the house of his deceased friend, as is usual with persons of his class upon such an occasion, he took another; and, lastly, he had some of his acquaintances at dinner, with whom he continued carousing till a late hour. Next morning, just after having been at stool, he was affected in a strange manner. He thought he heard five hundred people talking at once: the sensation was so lively, that he looked round to see if there were any persons near him; in his own way, he compared what he heard to the confusion of tongues at Babel. Portending the utmost danger from this sensation, he hurried across the farm-yard, and desired the surgeon who attended his family to be sent for without delay, and soon afterwards he became insensible. When the surgeon came, he bled him freely, and sent to Edinburgh for Dr. —. When that gentleman arrived, the patient was a little relieved, but still he laboured under considerable stupor; he was again let blood, and a third time next morning; and in a day or two he felt himself once more in good health.—*Cheyne on Apoplexy*, p. 83.

86. Sunday, 28th October, 1807, I was requested to visit J. W., 67 years of age, a farmer, of an athletic form and sanguine temperament, who for some years, had been subject to nephritic complaints, and frequent attacks of dyspnœa, with swelled ankles. This man had been frequently bled in his youth, and, for many years, every spring; of late years he has been temperate; but in the beginning of the month, having been invited to dine with some of his superiors, to settle parochial business, he thought himself obliged to drink freely of port wine; for some days after, his skin was much heated and dry, and he felt unusual languor and weakness. On the 12th of October, he was stooping to assist his servants in removing onions from one side of a loft to the other, he suddenly lost feeling and recollection, and would have fallen if he had not been supported. On Wednesday last he had one or two attacks of the same kind; on Thursday one; on Friday three, during a short walk; and on Saturday he was once or twice ill. Stooping invariably brought on this affection to a certain extent. To-day, in a crowded church, he was once or twice seized, while, as an elder, he was assisting at the sacrament table; and returning to church in the evening, he was so ill that it was necessary to carry him home: and with great difficulty he reached his own house, cold and shivering. I found him collected, but fearing the approach of palsy. His pulse was full, and he said he was quite well when the giddiness left him. While I was conversing with him a slight fit came on; he lost his recollection; he endeavoured to continue the conversation, but he merely repeated, indistinctly and faintly, the sentence which he had just finished; and, at last he continued muttering one of the words of it almost inarticulately; he was unable to support himself in his chair. While in this state his pulse was 60, and full. His sight, upon the approach of the giddiness, became dim, and, to use his own words, he "became stupid." Sixteen ounces of blood were immediately taken from his arm, without affecting the frequency of the pulse. He became sick during the application

of the compress to the orifice of the vein. While I remained with him he had no more of the giddiness, nor did it return all night.

October 29th.—Upon rising, he had a return of giddiness and insensibility, which lasted for several minutes. I saw him about an hour after, and found his pulse 60, and full; and, as the blood was sizzly, I ordered another blood-letting to the same extent. On the 30th, his pulse was 48; on the 31st, 48; on the 1st November, 42. He had no attack after the 29th April, 1808. This man is in better health than he has been for some years. His constitution rallied after his illness, the swelling of his legs subsided, and they have continued fine ever since. —*Cheyne on Apoplexy*, p. 84.

87. A stout young woman, 27 years of age, of a sanguine temperament, supposed six months gone with child, who had been about eight days ailing with œdematous swellings of her legs, awoke in the night of the 31st October, 1807, about midnight, with a pain striking from the scrobiculus cordis to the back, and complaining of severe headache. She soon became exceedingly restless, tossed about the rest of the night, and, at six in the morning, she was seized with convulsions. In the course of the forenoon the convulsions returned several times, and, at last, left her apoplectic. About two o'clock twenty ounces of blood were taken from her arm. At four her pulse was 100, and firm; she was insensible, and breathed with stertor. I saw her again at six, shortly after a return of the convulsions: in general she remained in the fit about two or three minutes. A gentleman, who practises midwifery, examined the os uteri, and found it dilated so as nearly to admit the finger. A pound of blood was drawn from the temporal artery. The pulse, which during the fit was 132, fell to 100. About half an hour after the blood-letting, she was observed to raise her hand to rub the wound in her temple. A blister was applied to her head, and saline glysters were given. Next day I found that she had gradually recovered the use of her senses,

but that she had lost the command of her right arm and leg. Her legs still pitted under the finger, but not so deeply. I saw her again in five or six days, and found that she had, in a great measure, recovered the power of motion, and entirely the feeling of her leg and arm. I also found the œdematous swelling completely reduced.—*Cheyne on Apoplexy*, p. 87.

88. July 28th, 1807, Janet Allen, æt. 32, of a slender form, and spare habit of body, married, the mother of two children, and now in the ninth month of her pregnancy. Excepting that she has been subject to headache and stomach complaints, it does not appear that anything remarkable occurred till yesterday, when she was suddenly seized with an unusually acute pain, darting through her head, attended with giddiness and disposition to syncope, while employed at her washing tub. The pain, however, was as momentary as sudden, and, after resting a few minutes, she persevered and finished her washing; she felt, however, languid and unusually fatigued, and complained of chillness and shivering on going to bed. Next morning, when her husband, a labouring man, rose, he was surprised to find her, contrary to her habit, still in a profound sleep and breathing high. He succeeded in awakening her; she opened one eye, groaned, but could not speak. He raised her head from the pillow, on which she became sick, and vomited. I was now desired to see her: she preserved the power of voluntary motion of the left side, but the right was completely paralytic. She seemed perfectly conscious when raised, attempted to speak, but could not articulate: she signified, by pointing with her left hand, that she desired to drink, and she swallowed with tolerable freedom. Her face was much distorted and flushed. The pulse 110, full and somewhat hard. I understood from her sister, that her reckoning was complete: but on examination, per vaginam, I ascertained that there had been as yet no commencement of labour. I ordered her to be bled to the amount of twenty ounces. Immediately after the operation a cathartic glyster was administered. She took

also a bolus of jalap and calomel. In the afternoon, the pulse being still full and bounding, I ordered another blood-letting to the amount of sixteen ounces.

Evening report. No remarkable change in the symptoms since my first visit. The right side is frequently motionless; she moves the left hand, and, now and then, is observed to draw up the leg of the same side. She dozes much, but is easily roused, and takes what is offered her. The pulse is softer, and the face less flushed. A great quantity of saliva collects in her mouth. The blood is sily. She has had three stools, and voided urine once. On examining the os uteri, I find it soft, more relaxed than in the morning, and dilated so as to receive the point of my finger. Rep. V. S. ad $\frac{3}{4}$ xij.

July 29th. Nothing remarkable has been observed by the attendants during the night. She has slumbered much; but, from time to time, has been roused to take a little gruel, prescribed for aliment and drink. She still tosses her left arm. She swallows with less ease. Pulse 120, full, and soft. She has voided urine twice, and passed one stool. She has given no indication of pain or suffering. On examining, however, I was surprised to find labour nearly perfected, the waters being discharged, and the head pressed hard against the perineum. In a few minutes more she was delivered of a living child. The placenta was naturally thrown off, the uterus contracted vigorously, and no flooding ensued; yet the patient was all this while nearly approaching to perfect apoplexy. The tossing of her left arm was the only remaining sign of any voluntary power. After delivery the pulse was as good as before; nor could I observe any other change in the symptoms. As day advanced she became more and more soporose, and the motion of the left arm was observed to cease. At my last visit this evening she lay motionless on her back, like one in a profound sleep, from which no effort could rouse her; the respiration was deep and stertorous; the pulse 130, by no means small or weak, but soft, full, and somewhat undulating. The lochial discharge was natural, neither abundant nor scanty.

July 30. She died at six o'clock this morning.

Dissection. Thirty hours after death I obtained leave to inspect the body. The contents of the thorax and abdomen were in a natural state. The uterus exhibited only the appearances common after recent natural delivery. The sinuses and external surfaces of the brain showed nothing uncommon in their appearance. But, on dissection of the cerebrum, I found a coagulum of blood in the left lateral ventricle; and, in withdrawing it, the plexus of vessels at the bottom of the ventricle was torn, nor could I ascertain with accuracy the breach from which the blood had been discharged. The coagulum weighed one ounce and three drachms. There was no effusion of blood or serum at the basis of the brain.—*Cheyne on Apoplexy*, p. 88.

89. On the 25th December, 1806, a corpulent and robust man, the master of a Berwick smack, in going aboard his vessel, fell into the harbour. He was under water nearly a minute, and with some difficulty he got on board; but he was apparently so little injured, that he first changed his clothes in his cabin, and then walked home. I was sent for by him at one o'clock, shortly after the accident happened, and found him chilly, but not complaining, unless slightly of his left shoulder; his pulse was not affected; he was rather faint; he appeared so little injured, that nothing seemed necessary but to order him to bed, the sooner to restore the heat, and to give him some warm wine and water. I was again sent for at three o'clock. He was lying upon his right side, his head, from choice, low, and he was breathing rather hurriedly, and had a constant short cough; his extremities were cold; his pulse, at the wrist, was distinct; his countenance was of a leaden paleness; his lips were livid. He complained of considerable uneasiness in his chest, immediately under the left nipple, and of the pain of his shoulder. An attempt had been made, before I arrived, to draw blood both from the right and left arm; but he told us, that surgeons on various occasions had in vain at-

tempted to draw blood from him. I perceived that he was not without a degree of stupor; and, as his breathing was becoming more hurried, I had the temporal artery opened, and the blood jetted from it darker than I ever saw venous blood. When about two cupfuls were procured, he complained of the inconvenience of the blood trickling into his eyes. I assisted him in turning to his left side, and his breathing became irregular, and stertorous; colourless froth was forced from his mouth, and the blood ceased to flow from the temporal artery. The froth worked up after his breathing stopped, and he died, as I was attempting to raise his head, without a groan or a convulsion.—*Cheyne on Apoplexy*, p. 92.

90. August 26th, 1804, Mr. A——n, æt. 65. I was called to visit this gentleman, in lodgings, at Bath Street, where he was residing for the convenience of sea-bathing, which he had been advised to use for some weeks. He had dined in Edinburgh, and had afterwards walked home. On his arrival, his daughter observed only that he was exceedingly flushed and warm, and that he was perspiring very copiously about the head and face. While she was preparing some drink he fell from his chair insensible. On my arrival he was laid in bed, his head and shoulders supported by his wife, and my father in the act of bleeding him. The state of apoplexy was complete, and unequivocal; the respiration was deep and sonorous, and the pulse was slow and full. His face was flushed, or rather livid, for he was a big and corpulent man, with a thick short neck, and the super-added signs of a bon-vivant. The blood flowed freely from a large orifice; and, as the fourth cup was nearly filled, our patient became sick, and vomited very freely the half-digested remains of a plentiful dinner. Instantly after this our patient opened his eyes and turned round his head; and, after two hours, he seemed nearly completely recovered. His wife and daughter were much less surprised than we were, for this was the gentleman's third attack of apoplexy; and the former fits had also terminated by vomiting. After the first

attack, the right arm continued paralytic for twelve weeks, but gradually recovered, after a course of sea-water bathing.—*Cheyne on Apoplexy*, p. 94.

91. 12th April, 1807, W. A——, a non-commissioned officer, of the royal artillery, 35 years of age, with black hair, very dark eyes, and florid complexion. For years this man had been subject to headache; the pain chiefly in the forehead. Of late, the headache had been exceedingly troublesome; and, for the last two months, he has been frequently disturbed in the night with incubus, and with great uneasiness, and starting in his sleep: he was often sick at stomach. The day before yesterday he was orderly non-commissioned officer, and came home in the evening, complaining of great thirst and fatigue, and eagerly took a large draught of porter, and went to bed. His wife awoke between two and three o'clock, in consequence of some sounds he was uttering; what kind she could not distinctly describe; but, when she procured a lamp, she found that he was dead. She thought this attack similar to those he had often, of late, sustained in the night.

Dissection. In dividing the scalp, there was a great flow of dark blood; and, during the dissection, blood flowed from the divided veins to the quantity of two pounds. There was nothing remarkable in the appearance of the dura mater; but, when it was raised, we were presented with striking marks of inflammation on the pia mater. This membrane was marbled all over with deep red and purple patches of inflamed vessels, and streaks of extravasated blood. These patches prevailed equally on the base of the brain and over both hemispheres. There was a serous effusion between the tunica arachnoides and pia mater, filling the interstices between the convolutions of the brain. The substance of the brain was of a natural degree of firmness. On cutting into it, the medullary portion appeared colourless, and the spots of venous and arterial blood were of not more than a moderate number. On opening the ventricle it appeared a little enlarged, and was full of a clear serous

fluid; both ventricles were alike; the hole of communication was enlarged; the veins on the sides of the ventricles, plexus choroides, and velum interpositum, were turgid; the red blood vessels also were in great number on the velum interpositum; the plexus choroides was loaded with blood. The pineal gland was remarkably soft; and when slightly pressed with the knife, it separated, just as if it had been putrid. The other ventricles contained a portion of fluid. On the base of the brain, particularly about the pons varolii, and on the cerebellum, the appearances of inflamed vessels, and a vermilion-coloured effusion, prevailed. The quantity of fluid in the ventricles was computed to be three ounces. We were not allowed to examine the heart, nor viscera of the abdomen.—*Cheyne on Apoplexy*, p. 96.

92. On the 27th March, 1806, I was called to a watchmaker, 50 years of age, of a phlegmatic temperament, flabby make, and devoted to spirituous potations, who had, fifteen months before, sustained a paralytic attack, which had slightly affected his speech and impaired his memory: this man had also been much troubled with nephritic complaints. While walking homewards from a gin shop, he was seized with a palsy of the right side: it was so complete, that he was soon unable to walk. I found him much agitated, but aware of his situation: he could not articulate distinctly, but several times he burst into tears; his signs and looks were highly significant of despair, and he uttered some short words with great eagerness of gesture. He was immediately bled to the amount of twenty ounces: the blood was buffy, and the surface of the clot contracted. The bloodletting did not affect his pulse. About seven o'clock, two hours after he was bled, he became extremely restless, tossing about his arm, and flinging out his leg with great impatience: he was quite insensible. His pupils were much contracted, his breathing stertorous, his pulse 64, and he was unable to swallow. His left arm he threw out with such violence, that it was impossible to have him bled. He was immediately cupped and scarified, saline glysters, of the

most stimulating kind, were injected. His head was shaved, and a blister applied to the scalp. In the morning of the 28th his pulse was 88, strong and irregular; his breathing irregular and stertorous; he was profoundly comatose, and his pupil was dilated. He was again largely blooded about nine o'clock. He died at eleven.

Dissection. March 29th. In dividing the scalp, the blood flowed, in great quantity, from the occipital and frontal veins. The skull-cap being raised from the dura mater, the longitudinal sinus was found full of partly coagulated blood. Having exposed the pia mater, the veins of it appeared very turgid. The substance of the brain was more than naturally firm; the cineritious substance was almost colourless. Spots of venous blood were seen all over the cut surfaces of the brain. On opening the right lateral ventricle, a great quantity of blood flowed out. On further laying open the ventricle, which had been much distended with blood, we discovered, adhering to the inner and fore part of the ventricle, a large coagulum of blood, in the form of an irregular tumour, apparently of the size of a pullet's egg; but, upon drawing it out, I found it much larger than I expected. This was explained by finding a hole of communication with the left lateral ventricle, so that part of the coagulum was drawn from this ventricle. The opening admitted my thumb freely. It had been made through the septum lucidum, under the fore part of the corpus callosum. Its place, and the circumstances of its first appearance, with the confusion of parts, were likely to make it pass for an enlargement of the foramen of communication between the ventricles under the formix, but the point was cleared in the progress of the dissection. We found blood in every part of the right ventricle. The inferior horn had suffered least distension. Having proceeded to the left ventricle, we found it not only distended, but its roof burst, and the blood in contact with the ragged surface of the brain: the surface of this ventricle was irregular and broken; the fore part, much enlarged, was filled with coagulated blood; and, on examining the coagulum, it appeared

rooted in the substance of the corpus striatum. The foramen commune, under the fornix, was of a natural appearance towards the right ventricle. The plexus choroides, where it turns down into the inferior horn in each ventricle, had upon it vesicles, to the number of six or eight, of different sizes, the largest as big as a pea. The third ventricle was full of blood. The tentorium having been slit up, the veins on the cerebellum appeared full, but not turgid; the fourth ventricle was also full of blood. The extravasation appeared to have been made into the left ventricle; from this it had found its way through the septum lucidum into the right ventricle, into the third through the communication under the fornix, and from the third into the fourth ventricle.—*Cheyne on Apoplexy*, p. 98.

93. A carpenter, 35 years of age, phlegmatic, pale, muscular, not habitually intemperate, and of a costive habit of body, died on the night of the 1st of June, 1808. In November, 1807, after he had been engaged for a whole day at work to which he was not accustomed, I believe stooping to cut sod, he complained of a severe headache; and this complaint frequently returned; and when he took one or two glasses of ardent spirits the headache never failed him. On the 25th of May, after drinking rather freely, he came home in the afternoon, sick, and complaining that the headache was unusually severe; and he was never after, for a whole day, without headache: he had also constant thirst. On Tuesday, 31st, upon going to bed, he had an attack of breathlessness, with a short cough, which continued till he fell asleep. On the 1st of June he worked all day at fatiguing work, and ate a hearty dinner. About the same hour in the evening, there was a return of the breathlessness, and he complained that the headache was becoming intolerable: he appeared to be very sick, and vomited his supper; and he soon after became insensible. About an hour and a half after the attack, his breathing was extremely irregular and laborious; inspiration would cease for nearly a quarter of a minute, and then go on with tolerable regularity

for a little ; his pulse was slow and irregular ; sometimes intermitting. He was quite insensible. A pound and a half of blood, taken from the arm, was the only measure tried for his relief : but his eye was already opake, and his visage pale. He died about midnight, two hours and a half after his breathing became affected.

Dissection. June 3rd. In cutting the scalp, and laying it back from the bone, a great quantity of dark blood flowed from the veins, and continued flowing during the dissection ; at the termination of which we found about a pound of blood in the basin which we had placed under the head. The veins of the dura mater were very turgid ; the small branches of its arteries numerous and distinct. On raising the membrane, the veins of the pia mater appeared likewise turgid, and the minute branches of the arteries were visible in great number. There was a slight effusion of colourless fluid between the tunica arachnoides and pia mater. The substance of the brain was firm : in cutting it, the marks of divided vessels were numerous. On opening the lateral ventricle of one side, it was observed to be dilated, and full of clear limpid fluid : it was dilated equally in all its parts. The opposite ventricle was exactly in the same condition. They contained nearly an ounce and a half of fluid. There were many turgid small veins on the sides of the ventricles. The plexus choroides was pale, or the red tint was scarcely perceptible ; and in one ventricle a cluster of small vesicles, containing a clear fluid, was attached to it. The veins in the velum were full. There was an unusual appearance of the pineal gland : on the fore part of it, between the roots of the pedunculi, there was a collection of extremely minute transparent vesicles, of a light clear yellow colour, about five or six in number ; not one above another, but all in the same plane. The third ventricle was not dilated. In dissecting the base of the brain, there was discovered, formed by a rupture in the substance of the pons varolii, a collection of dark clotted blood, in an irregular cavity, having a ragged surface, and communicating with the fourth ventricle, which was full of

blood. One part of this collection of blood was within a line of the external surface of the tuber annulare. In this place there were lodged two ounces of blood.—*Cheyne on Apoplexy*, p. 102.

94. On the 11th of June, 1808, I was called to see a corpulent woman, 50 years of age, of a sanguine temperament, florid complexion, and a spirit drinker, who had fallen down in a fit, a few minutes before, as she was going along a passage in her house, and just after she had been stooping. I found her in bed, flushed and retching; she was so much confused, that she was unable to give any account of her feelings; her pulse was irregular, and not more than 60; her respiration laborious. Her eyes were inflamed, and, along with her other features, distorted. She held her left hand to her head, and seemed to be in the greatest distress; the power of moving her right arm and leg appeared to be lost. Two pounds of blood were drawn from the veins of the arms, within a few minutes of the time she was seized with the fit. While the blood was flowing she had a return of the fit, during which her visage was much distorted. After the second fit, she appeared to labour under a complete paraplegia. In about half an hour I returned, only to see her die. Her breathing was stertorous and slow; not more than five or six acts of respiration in the minute. In this way she lay for two or three minutes: her visage was pale, and her jaw fallen: her pulse, not more than a minute or two before she died, was 52, and distinct. She did not live more than an hour and a half after the first seizure.

Dissection. June 12th. On the dura mater there were evidently the remains of increased vascular action. The pia mater also had been much inflamed, and the veins were still turgid. There was considerable serous effusion between the pia mater and tunica arachnoides. The effusion in many places had a deep purple tinge, from the admixture of blood. The colour of almost the whole of the under surface of the brain was vermilion. On puncturing the lateral ventricle of one side, a

clear fluid sprung out. The ventricle in every part was much dilated. The other ventricle was equally so, and they contained about three ounces of fluid. The hole of communication was so wide as easily to admit the point of the little finger. The plexus choroides was nearly colourless. The veins in the ventricles were full. On cutting through the substance of the brain on the right side of the right lateral ventricle, there was discovered, in the middle of the corpus striatum, a little mass of clotted blood in an irregular cell, not more than would have filled a teaspoon : and what is remarkable, there was a similar collection of blood precisely in the same situation in the other hemisphere. The third ventricle was very much dilated, and full of blood, mixed with serum. On turning up the base of the brain, we found the fourth ventricle full of blood, and a small laceration in the surface of the pons varolii, through which the blood appeared as in the last dissection ; and wishing to ascertain from what vessels the blood was effused, and being disturbed by some impertinent people who wished to force their way into the apartment, I had the brain removed to my own house, that it might be more leisurely examined. The fourth ventricle was full of blood, and very much dilated. On its inferior surface were irregular pits, containing coagula of blood, communicating with the large mass in the ventricle. Upon blowing into the basilar artery, (which was the largest we had ever seen,) bubbles of air rose in two places through the coagula ; and by washing away the substance of the brain with a camel's hair pencil, we discovered three minute vessels entering the substance of these coagula. They arose from two distinct branches of the basilar artery. These again arising within a fifth of an inch of each other, near the middle of the pons varolii, were of about twice the diameter of a hog's bristle. The course of the vessels to the coagula was this : the anterior proceeded from its origin forward nearly half an inch, and then divided into two branches, one of which almost immediately dipped into the pons varolii, was scarcely larger than a human hair ; and proceeding for two-thirds of an inch, it ended in a

clot of blood. The other division of this vessel, a little larger than the last, ended in a clot much nearer the external surface of the pons: it was situated behind the last. The posterior vessel arose from a different branch of the basilar artery, was rather larger where it left the trunk than the anterior, entered the clot in the same plane and depth with it, and was removed from it about a quarter of an inch. We next examined that part of the brain where the clot of blood was first discovered, namely, in the corpus striatum: there was found running towards it a vessel about 1-30th part of an inch in diameter, with several branches: none could be distinctly traced into the clot; but with a magnifier, I thought I could discover an open mouth of a vessel having a small clot in it. I omitted to mention, that before the brain was detached, there was about five or six ounces of blood collected in the cavity of the bone, and about as much more in the basin which stood under the head.—*Cheyne on Apoplexy*, p. 105.

95. Wednesday, August 10th, 1808. The subject of the following case was a naval officer, 33 years of age, of the middle height, rather corpulent and sallow, who had suffered from ague more than once in his youth, and again last September, when it was of a *quartan* type, and severe. He had quite an aguish constitution, and, during the prevalence of the east wind, he was usually threatened with ague. The last regular fit he had was in June; but, on Saturday, August 6th, he felt as if he were to have a return. He had been much on service, and had his leg carried away by the same shot by which Captain Duff was killed, in Lord Nelson's great battle. He lived as sailors generally do; in the course of every day he took two or three tumblers of grog. On Saturday some naval officers dined with him, and they sat long over their wine; and, when he was attending his guests out of the parlour, a fold of the carpet tripped him, and he fell, and hurt his groin on the socket part of his wooden leg; yet on Sunday and Monday he was in good spirits, and apparently in his usual health; perhaps he

did not find himself quite well, for on Tuesday morning early he took a dose of some quack or patent pill, (Barclay's, I think, it is called); he slept well that night, and made no complaint when first he rose; but, at breakfast, he became sick, and vomited bile; he went directly into his bedroom, and complained of intense headache: he said, "He believed one half of his head was separating from the other—he was dying." He said "he felt a conviction that he could not long survive such sensations as his were." He rubbed his hands, which had become numb; he undressed, and went to bed, complaining of dreadful headache, and still rubbing his hands; soon after he became incoherent, but, at noon, he would still point to his head. At one time he had a shivering fit, which shook both the bed and room in which he lay. At four o'clock I first saw him, and immediately had five large cupfuls of blood taken from his arm; a glyster with sea salt was injected; his head, which I found sunk, was properly raised; the scalp was shaved, and sponged with cold water and vinegar, and a current of air admitted into his chamber. At six o'clock I found him totally insensible, sometimes moaning; his respiration 60, his pulse 160, irregular and unequal, and sunk in strength. He was wet with sweat, his pupils were contracted to a point, and in no way affected by different degrees of light: his complexion, which was high, I cannot accurately describe, as the apartment in which he lay had only a borrowed light, and was nearly dark: while I stood at his bedside he vomited a fluid like coffee grounds; he swallowed none after ten o'clock in the forenoon. The blood drawn was not sily, the serum was unusually yellow. Leeches were applied to his temples, and glysters were again administered. At nine his inspirations were 48, and rendered difficult by a quantity of mucus in the windpipe. His pulse was 180. He died at midnight. Before death his complexion was livid, but he had no convulsions.

Dissection. There was no accumulation of blood in the superficial veins. Under the dura mater there was a quantity of coagulated blood spread thinly over the right hemisphere.

After raising the falx, there appeared a very large quantity of coagulated blood between the two hemispheres, separating them from each other beyond their natural distance, and reaching from the crista galli several inches backwards. On clearing part of it away, there was exposed an extensive irregular cavity, reaching almost to the base of the brain, in which nothing but coagulated blood was to be seen. Both ventricles were full of coagulated blood, and ruptured so that the blood in them communicated with that between the hemispheres. There was not a vestige of the corpus callosum: it seemed to have been destroyed by the force of the blood; as at the place where it is situated, the blood was mixed with portions of the brain. The fornix was scarcely to be recognised. Above the left ventricle, there was an extensive lodgment of blood in the substance of the brain, communicating with that between the hemispheres, and also, by another opening, with that in the ventricle. The anterior arteries of the brain, and the cellular substance surrounding them, were completely involved in coagulated blood, and small branches of these vessels were traced into the coagulum at different points. There were distinct and separate clots of blood found in different parts of the brain, in both hemispheres, and particularly in the left anterior lobe, and in the corpus striatum of the right side. All about its base, the substance of the brain was entire. There was in the posterior and inferior parts of the lateral ventricles, in the third ventricle, and in the fourth, a considerable quantity of fluid, deeply coloured with blood. The pia mater over a great part of the brain was suffused, as if a brush, dipped in blood, had been drawn over it. There were some appearances of increased vascularity in the internal surface of the dura mater; and of a stronger stamp in the pia mater of the cerebellum. There was nothing remarkable in the external appearance of the membranous viscera of the abdomen. The liver was marbled with spots of yellow, and after having been steeped a day in water, was universally of a deep yellow colour. The structure was altered, as, in handling it, it broke short, when but little

force was used. The biliary vessels were full of a dark ropy bile. The stomach was of a natural size and shape, but inflated; it appeared to be universally thick and fleshy, the veins between its coats turgid and large. The inner surface presented itself remarkably inflamed, and in a curious form. The surface was studded with innumerable little stars, uniformly of a rich lake colour, which, by the magnifying glass, seemed to be the terminations of blood-vessels in minute branches, with a slight extravasation of blood on every side of them; this form they preserved universally. At one part, near the pylorus, the colour was of a deeper shade, approaching to purple. About two-thirds of the stomach was affected in this way; the part least affected was the upper end of the great curvature. We found part of the duodenum, which we had removed from the body along with the stomach, also inflamed in the same manner. The stomach contained a small quantity of homogeneous fluid, of the consistence of mucus, and the colour of fullers' earth. The rest of the viscera appeared sound.—*Cheyne on Apoplexy*, p. 110.

96. The person whose case I am about to relate, was a man of considerable literary attainments, well-known to many of the gentlemen who graduated in Edinburgh for twenty years before his death, his employment having been to assist in preparing for examination, the candidates for medical degrees. He was a man of inoffensive manners, rather below the middle size, of a stout make, with a short neck, and of a pale or rather sallow complexion, and temperate in his habits; and he seldom took any exercise but that of walking with great composure. In 1794, when my acquaintance with him began, he was twelve hours a day engaged. Shortly before his death he had been much employed in teaching. He was subject to headache, and had long apprehended an apoplexy; but on the day before his death, (the 28th of April, 1806,) he appeared unusually cheerful. At seven o'clock Mr. C., entered the Hall of the Physical Society in perfect health and spirits. Soon after, he rose to speak, but in the course of a few minutes

sat down, having apparently finished what he had intended to say. Upon sitting down he complained of headache and sickness, and soon retired to an ante-room. I found him reclining on a sofa; he had vomited what he had taken at dinner; his face was pale, there was a cold sweat on his forehead, and he complained of sickness and general languor. His pulse was feeble and rather oppressed. He told me that soon after having begun to speak, he felt a slight headache, which rapidly increased to such severity as to give the idea that the sutures of the skull were about to be forced asunder, that then the sickness supervened, and the headache entirely left him; but dreading some serious illness, he had abruptly terminated his speech. His faculties were entire, but he appeared much alarmed at his situation, and expressed his apprehension that there was something apoplectic in his case. I recommended immediate blood-letting. To this however he did not seem willing to assent; and he was strengthened in his refusal by its being suggested to him that the whole uneasiness was probably occasioned by a nervous headache, which almost always affected the stomach, and he was advised to drink some tepid water to promote vomiting. He did so, but the sickness was not relieved by it. The headache, however, did not return. Having remained in this state for nearly half an hour, it was proposed that he should be removed to his own house. He declined being carried in a sedan-chair, as he said the motion was disagreeable to him, and he walked home supported by two of his friends. I urged the necessity of his going to bed, and if he felt the slightest return of headache, or of any confusion in his head, of being freely blooded, notwithstanding the sickness of his stomach, and the weakness of his pulse. On the way home he complained of cold, and had several fits of chillness, upon which he said he now knew what was the matter, "*he was seriously in for a fever.*" He was put to bed, and his friends left him, desiring him to be quiet and take some diluent drink. Experiencing, however, no relief, Mrs. C., about half-past eight, sent for Mr. —, who

was in the habit of attending the family. He was from home, and did not see the patient until about an hour after. At that time Mr. C. complained of severe headache and sickness. His pulse was feeble, and a slight degree of coma had come on. The case becoming urgent, Dr. — was called in.

By this time the coma had increased, and it was agreed that the patient should be cupped at the temples. This was accordingly done, and a considerable quantity of blood taken away. The pulse rose after the bleeding, but the stupor continued, and it soon settled into complete insensibility, which remained until his death, which took place at seven o'clock in the morning.

On examination after death, there was no laceration in the substance of the brain, the blood was altogether on its surface. The surface of the brain appeared deluged with blood, which had insinuated itself between all its convolutions, and seemed to have issued from a variety of sources.—*Cheyne on Apoplexy*, p. 115.

97. On the 18th of May, 1808, I was sent for at ten o'clock A. M., to see a man, 72 years of age, a dyer by trade, of very temperate habits, and of a spare form, who had been for two years in rather a declining state of health. Some years ago he is said to have had scrofulous sores. About three weeks ago, he travelled in the mail coach, in one day, from Newcastle-upon-Tyne to Glasgow, to take possession of some bequest. His wife says that he complained of headache immediately after the journey, and has repeatedly since. Yesterday he took a short walk, ate moderately at dinner, drank no fermented or spirituous liquor, and went to bed at his usual hour. He slept two hours calmly, but at twelve o'clock he awoke, complaining grievously of pain in his forehead, and pain of the right side of his body. He soon lost the power of articulating, and then his wife discovered that he had also lost the use of the whole of the left side of his body. During the night he gave no intimation of a desire to pass urine, which flowed from him in considerable quantity. He has swallowed nothing since the

attack. He sometimes breathes with stertor, but, in general, calmly and regularly. His right hand, in constant motion, is very often directed to his forehead, the skin of which is red, from the pressure of his hand. His eyelids are shut, as if the light were irksome; his pupils are contracted; he cannot articulate, and seems very imperfectly to understand what is said; he attempted, after having been repeatedly importuned, to show me his tongue. His pulse is 60, full and regular. There is some moisture on the skin.

Six o'clock, evening.—Twenty-four ounces of blood were taken from his arm immediately after I left him in the morning, and soon after a cathartic glyster was given, by which his bowels were evacuated. The blood was dark, without size, not very consistent, (much like the blood of a patient in continued fever,) once in the course of the afternoon he attempted to speak, but did not succeed in making himself understood; he has never opened his eyes; his face is now pale; although the light in the chamber is faint, I find his pupil exceedingly contracted. His right arm is still in constant motion, his pulse 48, and not so full.

May 19th.—Leeches were ordered last night, but were not applied. After a second glyster he had a further discharge from the bowels. He was restless in the night, constantly moving his right side until two o'clock. Since two he has been quiet. His pulse is 76, irregular, with an intermission once in a minute. His respiration is quickened about 38. His pupils are much contracted. He is unable to expectorate the loose mucus.

Evening.—He was again blooded in the morning, he became extremely restless as the day advanced, and died at seven o'clock.

Dissection.—In denuding the skull, not a drop of blood was effused. There was no mark of the increase of red vessels in the dura mater. On the pia mater there prevailed signs of inflammation. There was a slight effusion of clear serous fluid between the tunica arachnoides and pia mater. The minute blood-vessels were in increased number, but there was

no extravasation in the form of red striæ; the veins in the pia mater were full of blood. The substance of the brain was unusually soft. In the right ventricle there was a small quantity of limpid fluid; the ventricle was of a natural size. The other lateral ventricle was very much dilated, and full of clear serous fluid. One part of the ventricle was particularly distended, viz. the inferior horn. From the first descending part to the bottom, it was so large as to give passage to the little finger, without its touching the sides of the ventricle. The fornix adhered firmly to the velum interpositum, particularly at the anterior part, so that the fornix could not be raised from it. The quantity of fluid in the ventricle was about an ounce and a half. The abdomen and thorax were not examined.—*Cheyne on Apoplexy*, p. 125.

98. An ancient matron had been long afflicted with an hysterical disorder, and was always relieved with an hæmorrhage at her nose; or, in case that did not happen, by phlebotomy; with the disease and want, she grew much emaciated, and the inconveniences of a great age hastening upon her, a little before her death she was so followed with hysteric symptoms, that she seemed to live, as it were, in the grave; but upon her nose again bursting out with blood, she returned to her health, but very weak, and extremely wasted in flesh. About a month after, the same hæmorrhage threatening a return, she too hastily had recourse to styptic remedies, advised by an empiric; when, on the same day, she complained of a great pain in her head, and fell down apoplectic; and before the surgeon, who was sent for to let her blood, came, she died. In her head, which was opened, (nothing being found amiss in the middle or lower ventricle,) the blood-vessels on the left side of the pia mater, where the pain was complained of, were turgid beyond measure, with a very serous blood, but in the ventricles of the brain nothing was found but what was natural.—*Pitcairn's Elements of Physic*, p. 150.

99. A stout and well-made girl of 19, missed a menstrual evacuation, and three days afterwards felt a weakness in the lower extremities, followed by paralysis of both the upper and inferior limbs, with vertigo, tinnitus aurium, &c., but undiminished mental faculties. When brought to La Charité she evinced all the signs of vascular plethora; therefore blood-letting, glysters, abstinence, and other antiphlogistic measures were prescribed. The paralysis, however, of all the limbs continued, with partial distortion of the mouth. In three or four days the respiration became laborious, and the pulse accelerated. She died on the seventh day from the attack. On dissection, the exterior vessels of the brain, as well as those of the plexus choroides, were turgid with blood; and blood presented itself in numerous points on all the cut surfaces of the brain, the substance of which was very firm. There was no effusion or extravasation.—*Annuaire Medico-Chirurgicale*, vol. i. p. 376.

100. Two years before his death, Mr. H., æt. 73, was suddenly reduced from comparative affluence to a state of penury, through the bad conduct of a partner. The news of his partner's having absconded was first communicated to him in one of our public dockyards, where he had gone for the purpose of transacting business. On receiving this information, he immediately fell down insensible from a sudden fit of apoplexy. After a time he recovered from this attack sufficiently to write for one of the weekly journals, although his memory became defective, and the head frequently confused. The first fit left him with much general debility, which his wife thinks was greater upon the left side than the right. About ten months ago he had a second fit, of nearly the same severity as the first. After this he was never able to engage in any occupation, as his former state of debility was very much augmented, and the head symptoms considerably increased in severity. He had a third seizure about three weeks ago, whilst attempting to get from the bed to his chair. He

was then bled from the temporal artery very profusely, and had some aperient medicine; but the surgeon who bled him did not see him again, nor had he any further attention paid to him from that time till the latter end of June, 1828, when he came under the care of my friend, Dr. Stephen Hall, from whom I received the following account.

June 24th.—Since the bleeding, has at times been tolerably sensible, but in general either lies in a comatose state or is muttering unintelligibly to himself, at the same time pointing with his finger to some imaginary object, his eyes being fixed upon the pointing finger with a vacant stare. He occasionally answers coherently; and if one of those fits of aberration is not present, does as you direct him. The pupils are sensible to light. No strabismus. He appears to have lost almost all power in the right hand, as well as in his legs; he cannot grasp with his right hand nor straighten his knees, and any attempt to draw them down causes him to cry out violently even when he is too insensible to say why he does so. The temperature of these parts is the same as the other parts of the body, and the sensation does not appear diminished. Surface generally rather hotter than natural. Pulse quick and sharp. Tongue furred, does not tend to either side when protruded. Bowels have not been moved at all since the day before yesterday, and then only scantily. Respiration easy and natural. Gets very little sleep. Passes his urine well, and generally gives notice of his desire. He appeared to continue in much the same state until the 3rd of February, when he was reported to have been more conscious, as on that day he repeatedly spoke rationally to his wife, and knew those about him. He also had more power in his right hand, but an attempt to straighten either leg produced the same complaint. This favourable change continued for two or three days, after which he sunk into a comatose state, from which nothing could rouse him; and he died on the 9th of February. During this time there was considerable fever present, as indicated by dry skin and tongue, and the pulse was quick and small.

Sect. Cadav.—The head was opened forty-two hours after death. The inner surface of the dura mater appeared softer than natural. The vessels of the pia mater were much injected, and there was serum contained between the arachnoid and pia mater. The medullary substance of the brain had every where an unnaturally brown appearance, but was firm; the ventricles were fully distended with clear fluid; the plexus choroides turgid and florid; the fornix and septum lucidum particularly soft; and the walls of the ventricle in general, white, with a few finely-injected vessels running on their surface. At the base of the brain there was a large quantity of fluid, and on the tuber annulare, and part of the base of the cerebellum, the arachnoid was raised and filled in the same manner as in the convexity of the brain. In each of the posterior lobes of the cerebrum there was a softening in the substance of the brain. The space occupied by this changed structure was on each side about the size of a shilling. The sinuses did not contain more blood than usual. There was no appearance of any vessels having given way, nor of clot, unless these softened places might be considered as originating in this.—*Bright's Medical Reports*, vol. ii. p. 186.

101. — Jessey was affected twenty seven years before his death with cough, expectorating a quantity of purulent matter of a most offensive character, which was ascribed to the bursting of an abscess in the liver, the matter finding its way by adhesion through the lungs. I remember him well for above fifteen years, during which time he has always been an unwieldy bloated man, and for several years past has been more or less anasarcaous; his legs always swelled; and his face and eyelids frequently puffing up like bladders; occasionally he has complained of being very drowsy, and has always spoken in a desponding tone.

April 7th, 1829.—About twelve hours before his death he was seized with a fit, having the character of apoplexy, in which his pupils were contracted, and he was quite insensible;

a small quantity of blood was taken from his arm, and he seemed to recover a little, so that he could speak and understand what was said; but the state of coma returned, and he died completely apoplectic.

Sectio Cadaveris.—Some œdema of the face and legs; whole body excessively covered with adipose matter. Lungs nearly healthy throughout, except in part of the right lung, where a degree of hepatization had taken place; no trace whatever of an abscess or of very old serious injury; no adhesion to the diaphragm or other parts. Heart rather large; coronary vessels cartilaginous, not ossified. Valves healthy. Aorta with patches of cartilaginous thickening. The liver somewhat granulated and breaking down easily; but having nothing like scar or trace of old severe mischief. Gall-bladder full of calculi. Mucous membrane of stomach slightly irritated. Left kidney above the natural size, with three or four large vesicles upon it, granulated throughout its surface, and the star-like vessels on the surface very large. The tunica adiposa firmly attached to the kidney, as from former inflammation. The right kidney still more firmly attached to the tunica, which was nearly cartilaginous; the kidney slightly granulated. In the bladder about eight ounces of urine, of a deep colour, and coagulating very decidedly by heat, forming a darkish deposit. The head being opened, a large quantity of serum was found under the arachnoid, forming bladders of water, and a few small opaque spots appeared in the arachnoid itself. Convolutions of the brain unusually prominent, from the serum having collected between them. Brain itself natural, but the choroid plexus on both sides had a number of small vesicles; and in each plexus there was a yellow rounded mass, of the size of a small bean, of hard matter, with a vessel running over it. The quantity of serum in the ventricles was by no means great.—*Bright's Medical Reports*, vol. ii. p. 240.

102. On the 30th November, 1827, I was requested to visit — Collyer. I found him lying on the bed, insensible; the

breathing slightly stertorous. He had complained of being unwell, and while sitting on the chamber utensil he suddenly exclaimed, "Oh, my head!" laying his head on the bed; and had remained from that time in the state I then saw him. The pulse was jerking, contracted, and labouring, and the skin moderately warm. I at once opened a vein in the arm; but scarcely had two ounces of blood flowed from a rather small orifice, before he became cold, the pulse fluttering, and very small; I therefore bound up the arm directly. This state of pulse and chilliness continuing, seemed to indicate the use of stimulants. A few tea-spoonfuls of vinegar were poured down the throat, and brandy substituted as soon as it could be procured, and also a few drops of the compound spirit of ammonia, which excited cough, and in some degree appeared as if it was about to rouse him. Cloths dipped in hot water were at the same time applied to the pit of the stomach; but the head feeling hot and the carotids throbbing violently in the neck, cold cloths were dashed on the temples and forehead with a sudden jerk. The heat of the scalp, the throbbing of the carotids, and the insensibility still remaining,—without scarifying the skin, I placed two cupping-glasses at the back of the neck; these producing no mitigation, I ventured to scarify one, and drew away about one ounce of blood, watching the effect on the pulse. Finding it becoming depressed, I abstained from abstracting more; the pupil of the eye contracted on the approach of a candle. At the end of one hour, seeing there was some frothing at the mouth, I began to consider whether I had not been treating a case of epilepsy rather too much like one of apoplexy, and therefore directed some calomel to be smeared on the tongue, and those external measures which appeared best calculated to equalize the circulation and draw off the blood from the head. At five p. m., I found he had recovered his sensibility, spoke languidly, and was in a gentle perspiration; complained of some pain in the head, and felt very giddy; the bowels had not acted. I ordered glysters, and a large blister to the back of the neck. During the night he

had two slight returns of the fit. Calomel and scammony were given in the morning, and acting on the bowels, produced decided relief. The glysters and powders were repeated occasionally, and he appeared gradually improving during the week, till the afternoon of the 8th of December, when he experienced a return of considerable pain in the head. At two the next morning the insensibility returned, and he remained in that state till he expired at eight o'clock.

Sect. cadav.—Although his age was 19 years, his body was so diminutive that he resembled a boy of ten or twelve. Dissection disclosed an effusion of blood to at least eight ounces over the left hemisphere of the brain; this on closer examination was found to have proceeded from the bursting of an aneurismal sac, about the size of a large pea, situated on the left side of the hemisphere, much about where the anterior and middle lobes join. When cut into, a clot was found which nearly closed the aperture; it appeared to have been connected with one of the smaller ramifications of the middle cerebral artery. There was rather more water than natural in the ventricles. The chest was very much contracted; the lungs exceedingly small; the heart considerably enlarged.—*Bright's Medical Reports*, vol. ii. p. 266.

103. In May, 1827, a lady advanced in years suffered a sudden attack of apoplexy, with great pain in the top of the head, descending down the back of the head and the spine, which was effectually relieved by bleeding, so that in two or three days nothing but slight headache remained, without any paralysis.

Saturday, Feb. 2nd, 1828.—About nine in the morning, after dressing, she came into the drawing-room, sat down, and fell senseless to the ground. She was bled a few ounces immediately, and recovered a little so as to express most excessive pain by her moans and screams, and the tossing of her limbs, but she was unable to articulate. A fresh attack was experienced about half an hour after, and she died.

Sect. Cadav.—Substance of the brain not ruptured, and no mark whatever could be traced of the former attack. There was no blood in the lateral ventricles, but there was some in the third ventricle, and effused over the surface of the brain and deep between the convolutions, particularly on the left side. The choroid plexus was pale, and it was believed that the rupture had taken place just where the vena magna galeni joins with the lateral sinus; and near that part the chief coagulum of blood was situated.—*Bright's Medical Reports*, vol. ii. p. 268.

104. A gentleman, in an accidental fall had received a blow upon the back of his head, causing some external tenderness, but not sufficient to induce him to pay much attention to it. Several days afterwards he dined out, and the following day had company at home; the next morning he complained of pain in the head, particularly at the back part, and became very sick after his breakfast. The next day he found himself still unwell, though he did not vomit his breakfast as the day before. In the afternoon he sent for his medical attendant, who found that the scalp was still slightly tender where the blow had been received; he was suffering from frequent eructation, and his tongue was very foul. Pulse 72, calm. Medicines were prescribed to open the bowels and allay the irritation of the stomach. The following morning at eight o'clock, being the third morning since any alarming symptoms appeared, the medical man was sent for, on account of his having lost the use of his left side, and nearly the power of speech; he became drowsy; was bled freely, but died at six o'clock the same evening.

Sect. Cadav.—On the posterior part of the surface of the right hemisphere of the cerebrum a large quantity of blood was effused, which ran also between the convolutions. A considerable quantity of serum was effused on other parts of the brain, beneath the membranes, and into the spinal canal.—*Ibid.* vol. ii. p. 268.

105. A. M., Esq., aged 72, fell down while walking, on the 19th of April, 1829, having tripped against some wooden pegs placed on the grass; he struck his face against one of the pegs, and bled freely at the nose. He got up immediately and walked home, about three quarters of a mile, calling upon me on his way. I was absent, but visited him twice at his own house in the course of the day. I examined him minutely; could detect no injury but the bruise on the face, particularly on the nose, and there was no evidence of any internal mischief. As he had bled considerably, I saw no occasion for taking more blood, but purged him, made him keep quiet, and apply a lotion to the face. In a few days he walked about again, did not appear ill, but complained of some degree of double vision. He continued walking about daily, ate and drank as usual, and attended to matters of business; restrictions were laid on his diet, but he did not attend to them, and did not leave off his accustomed quantity of two or three glasses of wine. On the 11th of May, (12 days from the fall,) he was met by his daughter, walking *from* his own house; and on being asked whither he was going, said he was proceeding *homewards*—and showed other marks of loss of judgment. I saw him soon after his return, and found him in a confused state of mind, with some incoherence. He occasionally fell off into a sort of dose; and asked if I had been sent for, and had returned any answer? At the time I was sitting by him. He frequently took up a book and appeared to read: he complained of his head, but did not express any sense of severe pain. He walked with difficulty up to bed (two stories;) I bled him and purged him freely; the bowels were much loaded, and were torpid. On the following day some paralysis of the limbs appeared, and rather violent spasms of the face, particularly of the muscles of the lower jaw and neck, coming on in paroxysms, and lasting for a minute: his speech became very inarticulate, and he dozed a great deal. The symptoms daily increased. He was blistered, leeches, &c. When asked if in pain, he always said, No; and seemed, when thoroughly

awake, conscious of what was said to him. His pulse was not quick or unsteady, and the pupils were not in any respect dilated. He died on the 18th of May.

Sect. Cadav.—On sawing through the cranium there was a copious bleeding on the right side, and the anterior part of the skull. When the upper part was removed, much coagulated blood appeared beneath the dura mater, which extended from the upper and anterior part to the base of the middle lobe, on the right side, and invested the origin of the fifth pair of nerves. No injury whatever could be discovered upon any part of the bone. The source of the bleeding could not be ascertained. The coating of coagulum on the surface of the middle lobe of the brain was considerable. No other organ showed disease.—*Bright's Medical Reports*, vol. ii. p. 269.

106. Mr. N——, aged 57, of a spare habit, a temperate liver, of an anxious disposition, subject to be frequently disturbed from his rest by professional engagements, had enjoyed good health up to the evening of the 1st of July, 1830. Having been much fatigued during that day, he retired to rest about half-past ten, after having made a moderate supper. About half-past one he awoke with feelings of nausea; this was succeeded by several attempts to eject the contents of his stomach, and after vomiting he seemed relieved. Mrs. N—— became alarmed by some noise that proceeded from his throat, and rang for assistance. His son immediately rose and found him in an apoplectic fit, nearly insensible, and breathing with extreme difficulty. Before medical assistance could be obtained, his breathing had become stertorous, his pulse much depressed, and in twenty minutes from the seizure he died.

Sect. Cadav.—The membranes were turgid with dark-coloured blood, and the dura mater adhered very firmly to the bone. The substance of the hemispheres generally appeared to be healthy. On opening the lateral ventricles a large quantity of semi-fluid blood was found, distending the ventricles exceedingly, and raising up the velum interpositum from the

thalami. The corpora striata appeared to be torn on their surface, or rather broken down to the depth of about the fifth of an inch, and beyond this torn part, where the substance seemed to be entire, small dark spots of ecchymosis were discernible. The velum interpositum was also rent in one part; and from the blood-vessels of this membrane the hæmorrhage might possibly have arisen. On separating the thalami, the commissura mollis was found torn through by the distending force of the blood, which had found its way into the third ventricle, and thence into the fourth ventricle. The entire quantity of effused blood might amount to more than three ounces. Mr. —'s pulse had always been remarkable for its force. The heart appeared to be generally sound in its texture, with the exception of the aortic and mitral valves, which presented the appearance of slight deposit, but not to such extent as to interfere with their due function. The cavities were of their natural size, and the muscular parietes had the ordinary appearance of healthy muscle. The coronary arteries were much enlarged; the aorta appeared healthy.—*Bright's Medical Reports*, vol. ii. p. 274.

107. A thin spare-made woman, aged about 37, about a month before her death complained of headache, and was very sick at stomach; this was allayed in a few hours by ordinary means; and she was never materially ill from that time till the last attack, of which she died. It was, however, remembered that one day, about a fortnight before her death, she said she had a singular feeling in the head, with so much pain down her face that she was obliged to leave her occupation and lie down on her bed. And about a week after, she said she had felt such pain in her head and feverishness, that she was fearful she was about to have an attack of erysipelas; and the day previous to her death, while walking up stairs with another woman, she suddenly cried out she was giddy; but this went off immediately, and in the evening she was well and walking in the streets. April 25th, at about ten o'clock in the morning, she

was found lying senseless on the floor of her room, breathing rather stertorously; she was immediately bled to sixteen ounces, but without the least relief; occasional very slight spasmodic motions were observed in the legs and arms, but no other evidence of the power of motion. She lived in this state just one hour and a quarter, and died.

Sect. cadav.—A large clot of blood was found between the arachnoid lining the dura mater and that covering the brain. This was chiefly on the left side, but there was a little also on the right. The chief clot was over the left anterior lobe, and it adhered to the dura mater so as to be removed with it, and then displayed a large rent in the substance of the cerebrum in the front part of the anterior lobe; this rent was kept open by a clot of blood protruding from within, and by its side was an ecchymosis beneath the arachnoid extending into the fossa Sylvii. When a portion of the brain was removed laying open the clot, it was found that the superior part more particularly was surrounded by brain in a softened state almost like light yellow custard. This was about a quarter of an inch in thickness in some parts, and in it were several small bloody points from ruptured vessels; effusion of blood had taken place on the outside of the left corpus striatum and close to its anterior part; this had broken through the brain anteriorly, and had found its way into the lateral ventricle, which contained a considerable clot descending into the posterior cornu; and through the foramen of Monro it had passed into the right ventricle, where a small clot was seen attached to the orifice, projecting into the anterior part of the right ventricle, while the serum in this cavity was tinged with blood. In the fossa Sylvii, near to where the rupture had occurred, the vessels were not healthy; they had a peculiar yellow appearance, and the same was observable in the cortical portion of the brain itself at that part.—*Bright's Medical Reports*, vol. ii. p. 276.

108. John Butcher, aged 65, was admitted into Guy's

Hospital, Nov. 6th, 1827, in a state of apoplexy. A man of stout make and short neck; was formerly a soldier, but for the last fourteen years a porter in London; has often drank freely of beer, but has not been in the habit of frequent intoxication. For several years lately, he has suffered from rheumatism, chiefly affecting the left leg, of which the knee is somewhat contracted. For the last four or five years he has been known to complain frequently of headache, and once or twice of giddiness, but these symptoms have not been so severe as to oblige him to have any medical advice. He has been subject to a costive state of bowels. He was brought to the hospital about eleven o'clock A. M., having fallen down in the street about half an hour previously. At this time he was nearly insensible, and had lost the power of speech, though he made some efforts to express himself, and to put out his tongue when frequently desired. The right side was hemiplegic. Pulse 60, labouring. Mucus and saliva flowed from the mouth. The pupils of the eyes acted sluggishly. It appeared that he had not complained particularly of headache in the morning, but had left his home in apparently good health. Mitt. sang. ad $\bar{\text{z}}$ xiv. statim. Applic. embroc. capiti raso, et catapl. sinap. pedibus. Enema purg. stat. During the venesection there were occasional convulsive twitches of the upper and lower extremities. The pulse varied from 48 to 60; there was no improvement observable; no feculent matter followed the injection. The leg and arm on the left side were occasionally convulsed, and gradually lost all power of motion, and the breathing became stertorous. Fourteen ounces of blood were taken by cupping from the temples. A blister was applied to the neck, and three drops of croton oil were administered: no benefit, however, was derived from the treatment. The bowels did not act, the pupils became contracted; and he died at half-past eight o'clock, P. M.

Sect. cadav.—No particular vascularity of the dura mater. Remarkably little fluid upon and under the arachnoid. The

convolutions of the brain were much flattened, and the sulci between them were little evident, giving the idea of considerable pressure from within, particularly on the left side. Blood was thinly diffused over the whole surface of the cerebellum beneath its membranes, but there was nothing of the kind observable about the cerebrum, the tentorium forming the boundary, but it extended over the pons varolii and upper part of the spinal cord. Both lateral ventricles were excessively distended with blood and sanguineous serum, and they communicated by means of an extensive rupture of the septum lucidum. The greater quantity of coagulum was found on the left side, on which the thalamus nervi optici was completely torn through, and the substance of the brain in the neighbourhood lacerated, soft and ecchymosed. This state extended to a part of the corpus callosum. On the right side, the distension of the ventricle was about as great as on the left, but there was no laceration of the cerebral substance. There were two small spots of extravasated blood in the corpus callosum on the right side, and several much larger in the pons varolii. The arteries in the cranium were very healthy for the age of the patient. Heart of rather large size, free from adhesion, but having a small and rather thick loose white spot near its apex; very little if any thickening of the muscular parietes. Both cavities, particularly the left ventricle, dilated. Valves healthy.—*Bright's Medical Reports*, vol. ii. p. 277.

109. A. Y. was a robust man, of middle stature, 45 years of age. He had indulged freely in the use of ardent spirits and fermented liquors. For some years he had been the subject of severe and repeated attacks of rheumatic gout, and suffered frequently from violent cephalæ. Being a lighterman upon the Thames, he was exposed to the vicissitudes of the weather. His health for some months had been unusually good, though throughout the week previous to his fatal attack he had complained of severe pain in the fore part of the head. He had

recourse, however, to no remedial measures ; on the contrary, he had indulged freely in the use of spirits. On the day preceding the attack his stomach was irritable, and though he ate with an appetite, his food was again rejected, and he had violent and repeated retchings. He passed a tolerably good night, and rose as usual about six o'clock the next morning. Between seven and eight he was discovered in the water-closet in a fit, and described by those who found him as foaming at the mouth, and shaking violently. A surgeon was sent for, but the fit had subsided before he arrived. He found him labouring under symptoms indicative of pressure on the brain. He was sensible, but had no recollection of anything which had taken place that morning ; he gave short and abrupt answers, and complained of pain about the forehead ; his pulse was slow, full, oppressed, and labouring. He seemed lost, was restless, going from one part of the house to another ; and wanting something he knew not what. Twenty ounces of blood were taken from the arm, and some opening medicine administered ; he appeared to be relieved by the bleeding, and requested to lie down in bed. Between eleven and twelve he was seized with another fit, but the surgeon had not an opportunity of seeing him during its continuance. The symptoms of compression being now more manifest, he was cupped to sixteen ounces from the nape of the neck : the hair was removed from the head, and an evaporating lotion applied to the scalp. After the cupping he talked rationally, and his mental faculties seemed greatly restored ; but in the course of an hour he had another fit, when Dr. Addison was called in. The bandage was removed from the arm and a few ounces of blood were allowed to flow, while Dr. Addison noted the effects upon the pulse. A blister was applied to the nape of the neck, and an injection administered. He continued, however, to have a fit every half or three quarters of an hour, and expired in one of them on the same day, at seven o'clock, P. M. There was no paralysis, nor did the breathing become stertorous, until a short time before he died.

Sect. cadav.—The vessels of the membranes were found turgid, and there was slight effusion under the arachnoid. Separating the hemispheres and slicing down their substance, a clot of blood was found on the right side, in the cineritious substance about the junction of the anterior with the middle lobe. This, with a portion of the surrounding brain, was carefully removed. The substance of the brain presented more bloody spots than usual, but there was no effusion into the ventricles. The basilar and internal carotid arteries were diseased in structure, being in a great measure ossified.—*Bright's Medical Reports*, vol. ii. p. 279.

110. J. H., aged 20, had been six or seven years subject to most excruciating headaches, recurring from time to time, and often lasting for twelve hours, then going off with sickness. A month or six weeks before his death, he mentioned to his cousin that he had numbness down his whole left side. Thirteen days before the attack which put a period to his life, he had been running down a steep place, and had fallen on his head and rolled over; he was taken up almost in a state of insensibility, and his face and forehead were much bruised; but nothing further than the temporary inconvenience seemed then to have resulted from the fall, and no remedial measures were thought necessary. On Wednesday, July 4th, 1827, he was supposed to be in perfect health, and was in good spirits; he dined moderately at half-past three o'clock in the city, and walked to Bedford-place, when he drank tea and ate a few strawberries. It was a little after ten o'clock when he left the party, and at twelve was brought home nearly senseless from the watchhouse. It appeared that the watchman had found him in the street, as he at first supposed in a state of intoxication; but trying to raise him, found that he had entirely lost the use of his left side. He was able to state where he resided; but hoping it was only a temporary affection, begged the watchman not to give the alarm to his friends. But the watchman perceiving that he grew worse, and his face

more distorted, conveyed him home. When he arrived there, he had just power enough to say, "Giddy—in street," and was able to swallow a rhubarb draught. It then appeared that he had passed a large motion involuntarily on his way from where he was found. A medical man having been quickly sent for, he took away twenty ounces of blood from the arm, and afterwards about the same quantity by cupping from the neck and temples. I saw him about eleven o'clock the following morning, just twelve hours after the attack. He lay to all appearance senseless in bed, with his left hand, arm and leg motionless, while the right was continually agitated by convulsive action. His face was not at all distorted. When I spoke to him loud, and several times repeated the request that he would press my hand with his right hand, I thought he did so; and this was the only indication of intelligence I perceived. His pulse was below 100 and labouring; pupils rather contracted; urine passed unconsciously. We had the head shaved, cold washes were constantly applied, and strong cathartic glysters were given and repeated. I saw him again at two o'clock, and again at eight: the convulsion of the right side had ceased; he lay with his legs quite motionless; his left hand had acquired a slight convulsive action, contracting irregularly, and it was drawn up to his body, the elbow being bent; his right hand still moved occasionally towards his head. Pulse 120, active: pupils dilated, and did not contract when a candle was brought near them. I ordered the temporal artery to be opened, and waited to mark the effect. It seemed to afford no relief; on the contrary the breathing became rather more laborious, and therefore when six ounces had been taken we stopped. As the injection had acted but little, another was ordered, and a blister applied to the nape of the neck. We saw him again at twelve o'clock; very little alteration had taken place, but the hands were rather more contracted; we learned that his limbs were afterwards more agitated, and he died about half-past one o'clock, within twenty-six hours of his attack.

Sect. cadav.—Dura mater and arachnoid rather vascular, but there was no effusion. Convolutions of the brain more flattened on both hemispheres than I have often observed. The left ventricle contained a large clot of dark-coloured blood of the size of a small hen's egg, and the substance of the corpus striatum on this side was much broken down, so that it seemed the blood had first been effused into the substance of the brain, though the precise point could not be distinguished. On examining the clot of blood, it was evident that besides one large clot, there were several smaller clots, each of the size of a pea, separable from the mass, bearing the appearance of having come from separate vessels, and some small portions of brain were mingled with the clots; besides the clots, fluid blood, and serum coloured with blood, filled the whole of the ventricle, and distended the cornua. The right ventricle was also distended with blood and bloody serum, so that it was larger than natural, but no laceration of the brain had taken place on that side. We found the basilar artery decidedly diseased. A portion of the artery, to the length of a fourth or a sixth of an inch, was three times its natural thickness, and semicartilaginous round its whole calibre, so that it held itself with a circular open mouth; while the artery in other parts was collapsed and flat.—*Bright's Medical Reports*, vol. ii. p. 281.

111. John Baldrey, aged 61, a stout man with rather a short neck, admitted August 16th, 1827. He was said to have been aloft on some part of a ship at one o'clock to-day, and suddenly fell. It was difficult to get a clear account of him; but it appeared that his fall was broken by some men near him, and it was considered that the fall was not the cause of the subsequent insensibility. He was bled to about a pint. He was brought to the hospital at seven this evening; was then sensible to questions, and complained of pain in his head: the left side paralysed. Mitt. sang. ad \bar{z} xxiv. et hab. pil. colocynth, c. calomel gr. xv. statim.

Eleven o'clock. Pain of head relieved by the bleeding. Appl. cuc. cruent. nuchæ, et detrat. sanguis ad $\text{̄}xii$. Radatur caput, et admov. embr. commun. Injec. enema purgans.

17th. Had three more pills this morning. Bowels freely moved: now sensible to questions, but his manner very torpid and dull; some stertor; says he has no pain in his head: left arm and leg paralysed, with some slight affection of the muscles of the face; left pupil rather more dilated than the right, and more fixed. Tongue foul: pulse 72, rather full and jerking: skin not hot. Four or five hours after this report, his pulse was not so full; his bowels had been freely moved: rather more sensible, no stertorous breathing. To have a blister on each side, at the upper and anterior part of the chest; a common enema in the evening, if necessary.

18th. At twelve o'clock last night, had a severe fit bearing a good deal of the character of epilepsy. The right side was much convulsed, and the left slightly; his head was drawn to the right side. In two hours this subsided a little, but he remained nearly senseless. When seen at ten o'clock, he was in a state of stupor, with some stertor, but not altogether insensible. The left pupil acted a little: pulse 96, rather forcible and jerking: the skin not very hot; feet warm; he was sensible of his right leg being pinched, but not of his left. The blister had not risen; bowels open in the night. Ordered to be cupped at the back of the neck, and to have mustard poultices to the feet.

Half-past one P. M. He now attempts to put out his tongue; denies having any pain by a simple negative: breathing stertorous: pulse 96; bowels freely open.

19th. He moaned a good deal during the night: pulse very compressible, and of inconsiderable volume; some mucous rattle; appears sinking. Died about eight o'clock.

Sect. cadav. Heart large, and the left ventricle most unusually strong; the cavity rather small. Arch of the aorta diseased, with considerable thickening; the aorta uneven along its whole course, and just before the division into the iliaes the internal

surface was broken, and a completely ulcerated surface, of a dark appearance, showed itself. Carotids uneven, with cartilaginous deposits; the two vertebral arteries, before they form the basilar, diseased; the basilar itself diseased, and several of the small branches. The brain was flattened in its convolutions. On cutting down nearly on a level with the corpus callosum, nothing was observed but a small portion apparently much softened in the centre of the middle lobe of the cerebrum, on the right side; this was the top of an apoplectic clot, which was situated in the middle lobe of the right side, and contained about an ounce of blood: this had not quite found its way into the ventricle, but had destroyed the thalamus, and was literally held from the ventricle only by the membrane lining that cavity. The kidneys afforded a well-marked specimen of the hardened granulated kidney.—*Bright's Med. Reports*, vol. ii. p. 283.

112. Mary Agnes was admitted into Guy's Hospital, February 4th, 1829; she was said to be an elderly woman, but she did not look above 55; her teeth were quite perfect in front. The man who brought her said that he had been in the habit of seeing her daily, and she was not disabled in any of her limbs; he had, however, heard that she had formerly had a fit, but of what character we could not discover. This morning, at half-past seven, he went out and left the patient assisting in his house, lighting the fires: but when he came home in half an hour, he found that she had just been taken up senseless from the ground; she was breathing hard, but without convulsion. I saw her at about half-past twelve; at that time her countenance was pallid, and none of the features convulsed. There had been nothing done for her. She was lying flat and nearly motionless on her back in bed, apparently quite insensible when spoken to, or her eyes opened, or her hands and legs moved. The right arm was bent over the chest, and the hand nearly closed, and contracted with slight convulsive motion; the left hand was also somewhat in the same position, but less bent,

and quiet, and yielding more easily to be straightened; legs flat and extended, and not convulsed, but motionless. Respiration from 28 to 32, with a kind of plaintive groan or expiration, which was more prolonged than the inspiration; and I observed once or twice that the buccinator muscle seemed to yield in a powerless way to the air in expiration. Pulse under 50, not quite regular. Pupils contracted, but not acted upon by the light of a candle. Enema purg. stat. Empl. lyttæ nuchæ. Sumat hydr. subm. gr. v. et mist. magnesiae.

Seven, P. M. She has remained in the same state nearly all day; has shown no signs of consciousness, but has once or twice seemed to open her eyes a little: she has swallowed the pill, and two spoonfuls of the mixture. Respiration just as before, perhaps with more noise; and the cheeks rather more moved by the passage of the air: her hands, particularly the right, rather more contracted, and agitated.

Feb. 5th. Aspect and appearance as yesterday, and she has scarcely altered in any respect, but there is rather less convulsive motion of the hands and fingers. She has swallowed two or three times. Dr. Back had seen her about an hour before I did, and ordered her to be bled; she bore the loss of about ten ounces without any particular effect: the pulse was afterwards 100, rather sharp. I think her respiration a little more sonorous, approaching to stertor. In the evening a few leeches were applied to her temples.

6th. She has had some copious dejections; she lies much as yesterday, her legs quite straight out, feet rather extended, hands bent upon her chest. I understand that she seemed to assist herself and retain herself in a sitting posture while the barber took off her hair to allow the application of a blister to the scalp, which is now on; but she has not appeared to hear, see, or know anything; yet she appears conscious of my attempting, by pulling her chin, to make her put out her tongue. No drawing of the face.

8th. She has been lying almost precisely in the same state, has taken her medicine when raised, but has in no other way

shown signs of consciousness: pulse above 120; respiration rather quick, and performed with an effort in the expiration like the noise made in straining to expel the fæces: the convulsive motion of the hands less. I saw her raised, and when the cup with medicine was applied to her lips, she drew them up by a strong action of the orbicularis, as in a natural effort to drink by sucking in the fluid: her deglutition was very difficult, and accompanied by a choking noise: she also partially opened her eyes, and I thought attempted to make some kind of answer when I endeavoured to rouse her.

9th. One o'clock. A great change had taken place in her condition; she lay on her back apparently in a state of suffocation from a quantity of frothy mucus brought with a gurgling sound into her mouth; her hands and arms allowed of being bent with ease. I learnt that this change in her state had taken place about an hour and a half before, while attempting to swallow a cup of beef tea. In the evening she gradually sunk.

Sect. cadav. The dura mater of unusual vascularity, covered with drops of blood externally. No effusion of serum on the surface of the brain. Convolutions remarkably flattened in both hemispheres. It was found that a large clot of blood, not less than two ounces, had been effused into the anterior lobe of the right hemisphere of the cerebrum: the clot approached very near to the extent of the brain, on the anterior part, having nothing beyond it but a thin slip of the cineritious matter, and it almost filled the whole width of the hemisphere. This had found its way just above the middle or anterior part of the corpus striatum into the right ventricle; this ventricle was filled with blood, and a solid clot was found in the posterior cornu; but besides this, it had broken down the septum lucidum and spread into the left ventricle, which was also filled with bloody fluid, while its cornu contained a dark clot: the clot was most extensive in the right ventricle, but was of considerable size in the left. It had not found its way backwards into or under the cerebellum. In the vessels of the brain, several spots of a cartilaginous hardness were discoverable, and the membrane

formed by the pia mater and the arachnoid was most unusually thick about the fossa Sylvii, forming a membrane as firm nearly as the pleura.—*Bright's Medical Reports*, vol. ii. p. 285.

113. — was admitted into Guy's Hospital, labouring under hemiplegia of the right side, and great difficulty of articulation, and drowsiness, with some stertor. His complaint had come upon him suddenly about five days before, and his stupor at that time had been more profound. After he had been in the hospital three days, recovering a little, but imperfectly, he became decidedly and rather suddenly worse, his insensibility and stertor continually increased, and in about forty hours he expired.

Sect. cadav. The pericardium and the mediastinum loaded with fat; and the heart, which was rather large, was likewise encumbered with it. The heart with its valves and the aorta quite healthy, except at the base of one of the semilunar valves of the aorta, where a cartilaginous conversion of some consistence and thickness was taking place: apparently, however, the valves acted well. On removing the dura mater, the convolutions of the brain appeared flattened, and on passing the finger over the pia mater, the convolutions were scarcely felt, which was partly on account of the effusion of serum beneath that membrane forming in some parts bladders, each containing nearly a dessert spoonful of limpid serum. There was no particular mark of congestion either in the veins or arteries. A large clot of blood, of a grumous coffee-colour, was found occupying nearly the centre of the left hemisphere of the brain. The blood had not found its way into the lateral ventricle, but it had compressed it so as greatly to diminish its extent. The clot of blood occupied the situation of the corpus striatum chiefly, and showed a tendency to separate from the sides of the cell it had made.—*Ibid*, vol. ii. p. 288.

114. Robert Wardless, a porter, aged 58, was admitted into Guy's Hospital, March 25th, 1829. He had been seized sud-

denly the day before, while in the street driving a cart, with hemiplegia of the left side. He was immediately bled very copiously, but did not recover any of the lost power. At the time of his admission, the loss of motion in the left side was almost complete; and he had no sensation in these parts—this defect extended from the tip of the finger to the shoulder, and over the whole lower extremity; his head was turned quite to the right shoulder, and his eyes were also turned in the same direction. He was however able, with great effort, to turn the head and eyes partially to the left. The left corner of his mouth was drawn down. *Radatur caput, et applic. Embr. communis. Applic. cucurb. cruent. nuchæ, et detr. sanguis ad 3xii. Habeat mist. magnes. c. magn. sulph.*

26th. Pulse 92, rather sharp: tongue brown and furred; he complains of some pain in the forehead; the sphincters act very imperfectly; so that he has passed two stools in bed; but his intellects are quite clear, and he replies to questions with remarkable readiness and quickness.

27. He has had no sound sleep, but as soon as he falls asleep talks incoherently. He has complained much of pain in the affected limbs, and more particularly the thigh; there is not the slightest power of motion in the left arm, and he can make no effort to close his fingers; does not feel any one touching or pinching his hand or arm as far as the shoulder. Bowels open, but stools passed in bed. *Rept. medic.*

28th. Restless and frequently talking; his mouth is less drawn, but in other respects no change. *Ol. ricini 3ss statim.*

30th. He remains much the same, but appears to be losing power. *Inf. gent. c. cum sodæ subcarbon.*

April 2. Yesterday he appeared so much better, that he sat up, with much assistance, in his chair, and to-day when his bed was made: but he is obviously more drowsy, though capable of putting out his tongue, which is moist; and he is able to answer questions distinctly. He complains of pain over his whole body; the left eyelid is not raised perfectly; pulse 120; head drawn to the right: he lies in rather a torpid state, but is sen-

sible when roused. Applicentur cucurb. cruent. pone aures et empl. lyttæ occipiti.

3rd. Passes everything involuntarily; complains of pain in the left thigh, but none in the head. Has become gradually more comatose; but is capable of answering distinctly when roused: pulse 105. He gradually sank, growing weaker and less sensible, and died on the 5th.

Sect. cadav. The arachnoid raised by serous effusion over the whole surface, and sinking into the convolutions, so as to prevent their being flattened, and to lead to a doubt whether a bloody effusion would be found: but on removing a thin slice, the clot was opened, which contained about an ounce and a half of dark grumous blood, not bounded by any cyst, but mixing with the substance of the brain, which all around, for the extent of one-fourth of an inch, was of a fawn colour or brown red, from the percolation of blood; and this was quite softened down, the colour imperceptibly fading into the natural colour of the brain. In the posterior cornu of the right ventricle was a small clot of blood, and a small quantity of bloody serum filled the other part; this blood had found its way into the ventricle by a rupture just above the optic thalamus, and the thalamus itself was, at its posterior part, soft and discoloured like the parts of the brain surrounding the clot. The septum lucidum was entire, but sufficient blood had escaped through the foramen to colour the serum in the left ventricle, though no clot had formed. In the left corpus striatum, there was what appeared a softening of the substance, of the size of a pea, but this was not a very decided morbid appearance. The vessels at the basis were much ossified, and patches of the same kind in the arteries running over the corpus callosum, and those passing up the fossa Sylvii—from some branches of which probably the rupture had taken place. The aorta, both ascending and descending, was most extensively ossified, with bony granulations; the coronary vessels of the heart ossified in a very high degree, forming bony canals: some œdema and emphysema in the lungs.—*Bright's Medical Reports*, vol. ii. p. 290.

115. Catharine Davey, aged 63, was admitted into Guy's Hospital, July 22nd, 1829, in a state of complete hemiplegia of the right side, with loss of speech : the mouth much drawn. About three weeks ago she suddenly fell senseless while sitting in the passage of her house, and on coming to herself was found in the state in which she now is ; except that she has recovered a little, and a large slough has formed on the nates. *Abradatur capillitium. applic. cucurb. cruent. nuchæ, et detrat. sanguis ad ʒxii. Pil. col. c. cal. gr. xv. stat. Enema purgans si opus fuerit. Mist. magn. c. magn. sulph. Julep. menth. c. mist. camph. part. æqual.* She gradually improved, so that her articulation returned to a degree quite sufficient to express herself ; and she was remarkably cheerful : the right side, however, remained quite paralytic, both the arm and the leg.

August 21st. A great change was observed this morning, as if she had suffered a fresh attack. She lay on her back quite senseless—the power of articulation gone, and the face flushed. *Applic. cucurb. cruent. nuchæ, et detrat. sanguis ad ʒx. Empl. canth. pone aures.*

22nd. She has appeared to wander, though she has spoken intelligibly. Bowels much relaxed. *Enema amyli c. tr. opii. m xxx. stat.*

23rd. Pulse 120, small : skin warm ; no stool. She is less senseless in her appearance, but cannot speak. In the evening she quietly sunk.

Sect. cadav. Dura mater much loaded with blood, and when it was taken off, the arachnoid was seen thickened and slightly opaque, containing a quantity of serum, so great, between the convolutions, as to compress them and render them unusually narrow and rounded ; this was the case on both sides equally, and in no part could any flattening of the convolutions be perceived. The larger branches of the arteries running along the corpus callosum were in an extremely diseased state, spotted in every part with yellow cartilaginous patches. The arachnoid and dura mater together stript easily off the hemispheres, and in all the larger branches of the vessels ramifying upon the

surface the same tendency to disease was observable. The right ventricle was quite natural, but the serum it contained seemed very slightly turbid: the corpus striatum and optic thalamus were quite healthy. On the left side, however, the serum in the ventricle was decidedly turbid; the optic thalamus was completely diseased, soft, and of a yellow colour, with many vessels upon it. About half an inch from the corpus striatum, and quite in the medullary substance, was a cavity of the size of a small nutmeg, lined by a yellow brown membrane evidently vascular, but containing little or no fluid, so that the sides appeared to be coalescing, and had indeed adhered at the bottom. A small band of the membrane, with a vessel running along it, was seen passing from side to side. When a section was made so as to divide obliquely and perpendicularly the optic thalamus, a brown clot of grumous blood was found surrounded by a distinct yellow membranous cyst, so strong as to allow the blood to be scraped out and to be afterwards removed unbroken from the brain; that part of the optic thalamus, however, which was in immediate contact, was softened and discoloured. The basilar, vertebral, and carotid arteries were all diseased. The large vessels of the body, particularly the aorta and the trunks arising from the arch, as well as the iliaes, were all highly diseased; and about the arch large plates of bony matter lay between the coats.—*Bright's Medical Reports*, vol. ii. p. 292.

116. John Winchester, aged 37, was admitted into Guy's Hospital, November 28th, 1827, the subject of hemiplegia. He was a groom, a man of moderate stature, with cheeks naturally florid, with numerous vessels. On the 9th November, at eleven o'clock, A. M., having been previously for a few days occasionally subject to vertigo, he was seized with giddiness while at work in the stable; was bled freely—as he believes to the extent of a quart—and fainted: he felt much relieved, and returned to his usual work. When taking away the dinner things, he was suddenly seized, and without giddiness or loss

of senses, he at once lost both the power and sensation of his left side. Since that attack he has only had thirty-eight leeches applied to the temples and two blisters to his neck, and he has been frequently purged. At this time the power of moving the toes is alone returned, sensation has been restored to all the parts; the face is still drawn to the right side, but less than it was; the ankle of the affected foot is œdematous; pulse 80, of moderate strength; no pain in the head. Capt. hydr. c. cretâ gr.v. omni nocte, et mist. sennæ mane quotidie.

December 3rd. Moves his fingers rather better, and his toes and foot a good deal; his tongue is protruded a little to the left side; three good dejections.

7th. Found he could stand and walk with one stick yesterday; he has more use of his hand, and can raise the arm to the head.

14th. Can walk without a stick, and easily raises his hand to the top of his head.

21st. Walks a little lame, bowels regular; he is ordered to use his arm as much as possible.

24th. Complains of slight giddiness, but walks without the assistance of a stick. Appli. cucurb. cruent. nuchæ, et detrahatur sanguis ad \bar{z} xiv.

28th. Still complains of some giddiness without pain; walks slightly lame. Appl. cucurb. cruent. nuchæ, et detrahatur sanguis ad \bar{z} viii.

Feb. 1. Arm and foot still weak.

11th. He experienced slight momentary giddiness this morning while in the chapel. Cupped to \bar{z} x.

His diet, which had been very low, was gradually improved, and he returned to service the latter end of February.—*Bright's Medical Reports*, vol. ii. p. 322.

117. William Webb, a man of short stature but not of full habit, enjoyed good health till the beginning of June, 1829, when he frequently lost his sight several times in the day, so that suddenly, as he walked along the street, he was in total

darkness, and obliged to stand still. This lasted for a few minutes, and went off again. On June 24th, he fell down in the street quite senseless, and in that state was brought to the hospital, about half an hour after the attack. At that time he had all the symptoms of complete apoplexy. He was bled to xxx . and afterwards cupped to the same amount, and on the following day recovered his senses; but both the arm and leg of the left side were completely paralysed, and his speech affected.

July 25th. He has gradually recovered the use of his limbs, and now walks, and uses his arms pretty well; but his affected leg often starts and is painful.

27th. Last night at seven o'clock he suddenly became sick, and this has recurred ever since, when he rises to sit up in bed, at which time he feels giddy; he has brought up three chamber-pots full of fluid. Habeat pil. col. c. cal. gr. xv. statim. To be cupped at the back of the neck to xxiv . and to have a blister afterwards.

28th. Much relieved immediately by the cupping, and feels much better, but still complains a little of giddiness. Pulse 74, and slightly labouring. Cupped behind the ears to xxii .

30th. Slight return of sickness when he rose out of bed this morning. Pulse still labouring.

31st. Much better, and more cheerful.

August 24th. Still goes on well, walking about the ward with the help of a stick. In the middle of September he was dismissed, having no complaint but a little unsteadiness in his walk.—*Bright's Medical Reports*, vol. ii. p. 323.

118. Samuel Cabell, a large plethoric brewer's servant, was admitted into Guy's Hospital September 22nd, 1830. His countenance and lips were swollen and injected with purple blood; the right hand and leg were paralytic, and his articulation indistinct. The loss of voluntary motion was by no means complete, but sufficient to prevent his standing and deprive him of the power of holding anything in his hand. Pulse 96,

and feeble; tongue white; he complained of much oppression at the pit of his stomach; and there was a constant cough, with expectoration and mucous rattle. *Applic. cucurb. cruent. scrob. cordis, et detr. sanguis ad 3x. Empl. canth. inter scapulas. Sumat mist. oleos. c. vin. ipec. mxx. t. d. Sumat pil. scillæ c. hydr. ox. ciner. nocte maneque, et olei ricini 3ss. hora somni.*

23rd. The chest is relieved, and the expectoration comes away more freely. Bowels act imperfectly. Urine turbid. Pulse 120, weak. *Hab. pil. coloc. c. calom. gr. xv. statim. Rept. medic.*

On the 27th a blister was applied to the chest, and a small quantity of ammoniacum mixture was added to his medicine. He improved daily, and on the 4th of October was reported convalescent, being able to walk about without assistance, his arm having been for several days completely restored.—*Bright's Medical Reports*, vol. ii. p. 612.

119. Henry Newman, aged 45, a married man, and not addicted to drinking, was admitted into Guy's Hospital February 2nd, 1831, in consequence of mercurial cachexia, with some ulcers on the body. He had experienced several slight attacks of paralysis, and his mouth was drawn a little towards one side; his speech was affected. On the 11th he had complained a little of pain in the head, but had been walking about as usual. About 12 o'clock some of his friends had come to see him; and at half-past he accompanied them to the front gate of the hospital. On his return to the ward, he was observed to let something fall from his hand, and he staggered, and would have fallen, but that some fellow-patients saved him. He made an ineffectual attempt to speak; was somewhat convulsed, making a peculiar noise, which the sister of the ward at first thought to be an expression of feeling at separating from his friends; but he became in a few minutes senseless, and never spoke nor swallowed, and scarcely moved from that time; he sometimes breathed in a stertorous way, but at other times lay

in a state like tranquil sleep: his left pupil was much dilated, his right contracted. He was freely bled, and had some croton oil put upon his tongue; but he died at 2 o'clock on the following morning, thirteen hours after the first attack.

Sect. cadav. The vessels of the dura mater were filled. The serous membrane beneath scarcely moist, particularly on the right side. The convolutions of the brain were much flattened on both hemispheres. Blood, in parts amounting to a layer of coagulum, in the cells of the pia mater, was distributed pretty generally over the left hemisphere, and especially between the convolutions. The corpus callosum was highly arched upwards. The cerebral substance was of a natural consistence and vascularity. The two ventricles were distended with fluid serous blood; the inferior connexion of the septum lucidum was lacerated, soft, and ecchymosed. The substance of the left corpus striatum and of all the three lobes of that hemisphere, were occupied by one extensive cavity, containing blood and clot, the medullary substance being broken up, and presenting soft, ragged, and ecchymosed parietes to the contents, which seemed to open to the external pia mater, by some of the convolutions near the fissura Sylvii. The coats of the right cerebral artery seemed healthy, but the cylinder was obstructed by a loose flattened cord of fibrin, firm and of a pinkish hue, and ramifying into one or two of the arterial branches. A secondary arterial ramification in the fissure of Silvius, showed an aneurismal dilatation with very thin coats, filled with dark solid blood, in width rather less than half an inch, and in length rather more. The trunk leading to it was healthy, and empty; the trunk leading from it was full of dark blood. The torn vessel was not found. The middle artery on the right side was also considerably diseased.—*Bright's Medical Reports*, vol. ii. p. 613.

120. William Heakes, a feeble man, aged 65, was admitted into Guy's Hospital, January 4th, 1841, the subject of hemiplegia of the right side. It appeared that he had been troubled with occasional headaches for six or eight weeks, and that five

days before his admission he had been standing, in very severe weather, as a porter at a gate, where he became exceedingly cold; and having walked up stairs and gone to the fire, he was seized with giddiness, and was quite unconscious of what went on around him for a space of two or three hours: during this time he was bled in the arm, and he gradually recovered himself, but his left side was completely numb and powerless. At the time of his admission his hemiplegia still existed to such a degree that he was obliged to be carried to his bed; and although he could move his leg, he had no power to stand; his arm was still more powerless than his leg, and in both the sensation was very incomplete. His face was drawn to the right side, and he had a very severe cough, during the paroxysms of which his urine passed unconsciously. It was evident that he laboured at the time under great bronchial irritation, to which he said he had been subject for twelve or fourteen years. It was to this that I chiefly turned my attention, giving him mucilaginous medicines, with ipecacuanha and small quantities of squills, to which I afterwards added the ammoniacum; and in this way, with attention to his bowels, (which afterwards became too relaxed,) I saw him improve so rapidly, that by the 2nd of February he left the house able to walk, and to use his arm perfectly, and he resumed his former occupation.—*Bright's Medical Reports*, vol. ii. p. 616.

121. Travelling in the summer, in one of the short stages, I sat opposite an aged and corpulent man, who suddenly lost his consciousness and power of motion. His countenance became first pale, then bloated and inexpressive, his breathing slow and slightly stertorous; all his muscles completely relaxed, and he fell, in a few seconds, upon those sitting around him. We were only a few doors from a chemist's shop; the coach was stopped, and he was carried thither. He was now profoundly apoplectic; a copious perspiration flowed from his face and forehead, the veins of which were distended, and all his senses were completely abolished. There was no sign of hemi-

plegia, but there was general and complete loss of motion and sensation. His neckcloth having been removed, the pulsation of the carotids was found to be slow, and of natural strength and fulness. Whilst he was held in a sitting posture in a chair, cold water was poured gently over his head from a sponge, and his head frequently sponged with it; volatile salts also were held for a short time, and at intervals, to his nostrils. The power of deglutition was at this time abolished, so that it was impossible to administer a draught, consisting of sp. ammon. arom. and camphor mixture, which was prescribed. In a very few minutes his consciousness returned, he took the draught, and, in a short time afterwards, he walked to a coach, in which I accompanied him home. He now complained only of very slight confusion of ideas, with scarcely any headache, but his carotids beat more firmly. One full bloodletting and an active purgative, were now directed. The next day he was perfectly well, and has continued so.—*Copland's Dictionary of Practical Medicine*, p. 103.

122. I was lately called to a case of puerperal convulsions which had terminated in the apoplectic state. When I saw the patient, the labour had not proceeded so far as to admit of delivery by means of instruments. The pulse was slow and full; the breathing slow, laborious, and stertorous; the lips puffing and frothy; the countenance tumid and livid; all the limbs flaccid, insensible, and incapable of motion. She had been blooded largely before I was called. The feet and legs were directed to be placed in a pan of hot water, and the saphenæ veins to be opened. Whilst the blood flowed, the cold affusion on the head was employed. These means were evidently beneficial, though insufficient. A cathartic enema was thrown up immediately, and with great difficulty; consciousness slowly returned; when the decoction of the secale cornutum, with as much boras sodæ as it could dissolve, was administered. Uterine action afterwards came on, and the patient recovered.—*Ibid.* p. 105.

123. A soldier, aged 48 years, four years after having recovered from pleurisy, was attacked with jaundice, which gave way to proper treatment. Three months afterwards he fell down, and died suddenly of apoplexy, after a copious repast. The brain was found full of blood; the right ventricle contained a clot which weighed three ounces; the liver was very large and congested, containing a large abscess filled with offensive dark-coloured pus; this abscess was situated in that part of the liver contiguous to the diaphragm, which was in that place thickened and callous; the gall-bladder was full of bile.—*Portal. Observ. sur la Nature, &c. de l'Apoplexie*, p. 33.

124. A man, 40 years of age, is attacked with strong apoplexy during a meal, and dies on the second day. His body was opened, and discovered serum in the ventricles of the brain, and hydatids in the plexus choroides.—*Morgagni, Epist. Anat. Med.* 11.

125. A man, 60 years of age, after a full meal, went to bed sooner than usual; two hours afterwards he was found dead; his body was cold. The vessels of the brain were much distended with blood. In other respects, the brain was healthy, although there was a good deal of fluid in the ventricles.—*Morgagni, ibid.*

126. A young man, 29 years of age, hunchbacked, and a drinker, died suddenly, discharging from the mouth some blood and part of the wine he had taken. The brain was covered with fluid, and the ventricles full of water. There were also several hydatids in the brain.—*Morgagni, ibid.*

127. A young man, after a full meal and much drinking, felt a numbness in his right hand; there was afterwards paralysis of the thigh and leg of the same side, without loss of reason; he lost the sight of the right eye; he yet from the first enjoyed his reason, but his mind is restless; convulsions

supervene, and in a short time he died. The great ventricles of the brain were full of blood, partly ichorous and partly coagulated, with a large quantity of serum.—*Willis, Lieutaud, Hist. Anat. Med. lib. 271.*

128. A woman, 55 years of age, of a sanguine temperament, addicted to drinking, subject to colonic pains, heavy and disposed to sleep, complained at last of severe pain in the right temple and eye, and was seized with apoplexy; an hour after, the right hand was discovered to be paralysed; she vomited some wine by feeble efforts; her respiration was stertorous, and she died. On examination after death, the colon was found contracted, and more rounded than usual towards the umbilicus. The pericardium was full of fluid, the valves of the aorta diseased, almost cartilaginous; and the right hemisphere of the brain contained some granulated blood in its substance; there was also some between the membranes and in the right ventricle.—*Morgagni, Lieutaud, p. 3, obs. 249.*

129. A man, 64 years of age, addicted to drinking, was attacked with quartan fever; he recovered his health, and was seized with apoplexy during a meal; he fell down with stertor and died. The brain was found full of water; there was also a good deal in the ventricles and convolutions; the covering of the spinal marrow was also full of it, to such a degree that the spinal marrow was inundated with it.—*Manget, Lieutaud, 5, 430.*

130. A gentleman, about 60 years of age, very fat and of a full habit, had an attack of apoplexy after his dinner; he took an emetic in half a glass of water, which was swallowed with much difficulty; he made some efforts to vomit, and ejected a little of the contents of the stomach, but he soon after became more apoplectic, stertor supervened, and he died. A good deal of water was found in the ventricles of the brain, mixed with mucous and albuminous concretions, as well as some dark

thick blood in the sinuses and veins.—*Portal, Obs. sur L'Apoplexie*, p. 37.

131. A mason was seized with apoplexy whilst in an ale-house; he was carried home, void of sensation or motion, with stertorous respiration and considerable bleeding from the nose; the surgeon who first saw him, called me in on the third day; he had not bled this patient, although he had all the symptoms of plethora, from the dangerous notion that bleeding was not suitable for apoplexy coming on at the time of, or soon after, a meal. This man died and was examined. There was a large quantity of blood extravasated between the membranes and in the ventricles of the brain; the cavities of the heart and the vessels of the chest and abdomen were also full of blood.—*Portal, ibid* p. 38.

132. M. D., stout and of full habit, was seized, after a meal, with great drowsiness and difficulty in breathing, without consciousness or feeling, or power of movement in the muscles of the trunk and extremities, and with great relaxation of the limbs; his countenance, ordinarily full of colour, became very pale, his pulse small, hard, and labouring. The attendants, thinking it was only indigestion, were so persuaded that he should have an emetic, that they had sent for one before I arrived, in order that it might be given without delay; but after carefully examining the patient, I judged of him quite differently. I had him bled, in spite of the opposition of his friends, who did not fail to remark even that I should kill the patient if I bled him after a meal. However after the bleeding, M. D. regained his consciousness, sensation, and motion. At my morning visit on the following day, I found the pulse rising and hard; the countenance, instead of being pale, was very red; I thought it right to advise a second bleeding, which was done; we removed the blisters from the legs, which had been applied after the first bleeding, and they had drawn well; aperient medicines and injections were used

at intervals afterwards, and his health was quite established.—*Portal, ibid.* p. 41.

133. On the 28th of October, 1783, I was summoned to a gentleman about 65 years of age, of a strong constitution, subject, as I was told, for a long time to severe headaches; he had lately become deaf, and experienced remarkable tremblings of the limbs, with movements of the left eyelid commonly called *nystagmus*. He was neither thin nor fat; on going to bed after a full supper, he fell into a stertorous drowsiness, from which it was impossible to rouse him. A surgeon was sent for, who, perceiving the patient to be in a fit of apoplexy, with a hard and full pulse, did not hesitate to bleed him, although his countenance was not redder than natural. About eight ounces of blood were drawn from the arm; two blisters applied to the legs; but scarcely had the bleeding been finished, when the patient vomited some of the food he had taken for his supper; he then had copious relief from the bowels. Consciousness, motion, and sensation were generally re-established, with the exception of the left arm, which remained affected with partial paralysis, with loss of motion, but not of sensation. I was called in the following day to see this patient; and advised a small quantity of tartrate of antimony with Glauber's salt, dissolved in water, to be taken several times during the day, in order to facilitate the continuation of the alvine evacuations: this effect was produced, and continued for several days. The patient afterwards took the waters of Balaruc; the blisters on the legs were kept open for some time, and replaced by one on the right arm, whilst the left arm was rubbed every day with a weak tincture of cantharides. At length his paralysis diminished, and was completely cured by long-continued precautions. This patient has experienced no return of apoplexy, nor even of stupor or numbness in the limbs.—*Portal, ibid.* p. 43.

134. Madame de B——, of good constitution, mother of

several children, six of whom were alive and well, had in her youth experienced several attacks of illness which appeared to arise from sanguineous plethora, such as headaches, laboured respiration, palpitation, &c., which were generally relieved by menstruation when plentiful, or by antiphlogistic measures; these, together with a regulated diet and country air, restored her to health. However, towards the critical period of life, her catamenia became less abundant, she acquired an increase of embonpoint; her countenance was more red, the pulse fuller; she was troubled with lassitude, and occasional pain in the loins; the head was heavy, the respiration not so free as in the natural state; the lower extremities were œdematous, and the whole body appeared a little emphysematous, at the same time there was slight numbness of the feet and hands. I considered that excess of blood in the vessels, from diminished menstruation, and perhaps from other causes also, was the principal cause of all these symptoms, even of the œdema. After having advised some mild aperients and diuretics without success, I thought it advisable to bleed the patient and afterwards to apply a blister to the arm; the bleeding was so beneficial, that soon after it was done, the numbness and swelling ceased; the blister was kept open some time; the patient made use of stimulating remedies, with mild purgatives from time to time, and was cured. Some time after this, Madame de B. experienced a comatose drowsiness and incomplete hemiplegia of the left side, for which bleedings, blisters, and the waters of Balaruc were prescribed; she also took a sea voyage, but was only relieved. The difficulty of walking is still great, owing to the weakness of the lower extremity; the movements of the left arm are much more feeble and difficult than those of the other arm; the hemiplegic side is also a little atrophied, which leaves but little hope of perfect recovery.—*Portal, ibid.* p. 56.

135. Madame de F., who had been very delicate in early life, having spit blood several times before the appearance of the

menses, and afterwards when they were retarded or diminished; she appeared to have small vessels and much blood. She afterwards had a troublesome cough with hemoptysis and fever, which led to the idea that she was consumptive, but by removal to a warmer climate and appropriate treatment, her health was perfectly restored. She had grown stout, and seemed in the best of health, when she was attacked with heaviness of the head and involuntary movements in the muscles of the face and extremities. Profound drowsiness supervened, succeeded by partial paralysis of the muscles of the upper lip and arm of the right side. When called in to attend her, I learned that the menses had been for some time diminished and retarded; and from the plethoric constitution of the patient, I attributed the attack of apoplexy to an excess of blood in the brain, compressing that organ and the origin of the nerves. I advised bleeding in the foot in the morning, to be repeated in the evening; also blisters to the legs and relaxing draughts; the treatment was so beneficial that on the following day the lips were less drawn; the arm also had acquired slight motion and sensation; and I thought it right still to apply leeches to the temples. Some days after the patient took some of the waters of Balaruc, and by means of this treatment continued for some time, with variations and modifications relating to situation, she has not only avoided an attack of complete apoplexy, but is nearly recovered; I say nearly, for she still experiences a little loss of power in the levator muscles of the lips on the right side.—*Portal, ibid.* p. 59.

136. The daughter of M. Broussouge, about 14 years of age, of strong constitution, rather small, with a large head for her size, and who had suffered from convulsions during dentition, had been subject to bleeding at the nose for three years; when the bleeding at the nose did not take place, it was observed that this patient experienced giddiness, sometimes deafness, and imperfection of sight. These bleedings at the nose had

diminished from three to four months, when she fell into a state of profound drowsiness, with stertorous breathing, into a true apoplexy. I bled the young patient in the foot, applied two blisters to the legs, and prescribed laxative draughts, a little milk, veal broth, &c., also some emollient lavements. Consciousness returned, but the patient remained affected with slight hemiplegia of the right side, which however was removed by the after-treatment; leeches from time to time to the labia, baths, a blister to the affected arm, and regular menstruation, effected a cure. This young lady is married, and has had children.—*Portal, ibid.* p. 61.

137. M. S., a man of strong constitution, 76 years of age, was attacked with apoplexy, for which at first nothing was prescribed but cordials. I arrived soon after he had recovered his consciousness and speech, but pronouncing his words unintelligibly. He was paralytic in the left arm, the tongue was turned to the right side when protruded from the mouth, which was done with much difficulty; the mouth was drawn to the right side, the pulse was full and hard. He was bled from the foot, and had blisters applied to the legs; but when a pallet of blood had been extracted, he recovered sufficiently to take his legs out of the water into which they had been placed, stood up, and uttered loud screams. It was supposed, rather than ascertained, that he believed himself to have been assassinated; he was bled again, and had blisters to the legs; he regained sensation and motion completely; but out of twenty words which he pronounced, there were eighteen not understood, and the other two were misapplied. It was reported in Paris that he was mad; but I saw that it was less a loss of reason than of the power of expressing himself. He remained in much the same state as regards the difficulty of speaking correctly, between three and four years, without a return of apoplexy or any kind of paralytic affection; he was strong, vigorous, and took a long walk in Paris every day. Three or four times a year, I had leeches applied to the anus;

frequently he put his feet in hot sea water. He afterwards took a voyage to Montpellier, and on his return, caught a fever which terminated his career.—*Portal, ibid.* p. 64.

138. A merchant, 40 years of age, of melancholic temperament, and harassed by business, was affected with very severe headaches after exposure to the heat of the sun; he had spasms and muscular contractions, sometimes in the face, sometimes in the limbs; on the fourth day, he fell into a state of profound drowsiness, with stertorous respiration, the pulse very full, large, and intermittent, and in a short time he died.

The vessels of the brain and its membranes were full of blood, and there was an abscess of the brain, and so large a quantity of pus in the cavity of the cranium, that it seemed scarcely able to contain the brain.—*Lieutaud, Histor. Anat. Med.* part. iii. obs. 69.

139. A man, 50 years of age, of very strong constitution, was exposed for a long time to the heat of the sun; he experienced pain in the head, with extreme numbness; severe fever supervened; on the third day purulent matter escaped from the nose, without affording relief. On the fourteenth day, the fever being very violent, and the headache very severe; he became comatose, with convulsive movements in the eyes; on the following day he died. On removing the dura mater, the brain was found covered with pus, of which there was a large quantity at its base; the substance of the brain appeared healthy; the bones of the cranium were entire, but the frontal and maxillary sinuses were full of pus, although there seemed to be no communication between the morbid parts.—*Lieutaud, iii.* 453.

140. A man, 70 years of age, accustomed to the free use of wine, was subject to inflammation of the eyes; he complained of fulness in the head, and moreover, exposed himself to the heat of the sun. Two days afterwards he died of apoplexy.

The right ventricle of the brain contained a quantity of coagulated blood, equal in size to a hen's egg; the plexus choroides was full of hydatids, some of which were very large. — *Morgagni, de Sed. et Caus. Morbor. epist. ii.*

141. A merchant, about 50 years of age, of very robust constitution, and rather stout, appeared to enjoy the best of health; a few days after his arrival at Paris, where he had taken a great deal of exercise both riding and walking, after dining with his friends, he retired to his hotel and complained of very acute pain in the head; he was very agitated during the night, and the next morning became very delirious. I found the patient with an extremely red countenance, the pulse full, hard, and more frequent than natural; he made no answer to questions; the tongue was very red; the abdomen hard; the urine red and scanty; the surface of the body extremely hot. In about an hour, the patient became comatose, with difficult and stertorous breathing. He was quickly bled in the foot to the extent of three pallets. In the evening he was bled again. The patient recovered his senses, respiration was more free and without stertor, the heat of skin less pungent. The following morning ten leeches were applied to the anus; a mode of bleeding which I preferred, because I had learned that he had for some years been subject to bleeding piles, and that this salutary evacuation had for some time disappeared. Perspiration was re-established, the tongue became moist, the urine was less red; the patient took a little milk and other light refreshing drinks. Some emollient glysters procured the evacuation of hard fæcal matter; speech and reason returned; his hands, which at first trembled, became steady, and his health was re-established; with the exception of his memory, which he did not recover completely until some months afterwards. — *Portal sur l'Apoplexie*, p. 81.

142. A bookbinder, about 50 years of age, large and fat,

with red face, naturally disposed to sleep, complained of severe pain in the head, which was considered as a symptom accompanying an ophthalmia, and coryza, with which he was affected; the muscles of the trunk and limbs were weak, making his walk unsteady. His mouth was also a little open, the lower lip being turned downwards toward the chin, the sense of touch was obtuse; he said he appeared to have fine muslin between his fingers, and padding under his feet. He became extremely drowsy, and remained so for some days. He lost completely the sensation and power of motion in the limbs, the respiration became stertorous, and he died apoplectic. The vessels of the brain were gorged with dark blood; the ventricles contained a good deal of water, and there were large hydatids in the plexus choroides. The lungs were filled with dark blood, the pericardium full of water, the ventricles of the heart large, and their parietes thick and relaxed.—*Portal, ibid.* p. 91.

143. M. d'Arlincourt had been affected for some time, every winter, with obstinate catarrhal affections, which, however, yielded to gentle treatment and keeping to his room. In the winter of 1787 he had a more violent attack than any he had before; his cough was very severe, with great fulness of pulse and oppression of the chest; he became excessively drowsy, and lost motion and sensation: the breathing was stertorous, the pulse full, and the countenance red. A surgeon had made ineffectual attempts to produce vomiting. I ordered him to be bled in the foot, and mustard poultices on the soles of the feet—at the same time he was made to swallow a fluid containing a few drops of volatile alkali, which was at hand. The pulse appeared to become softer and more regular; respiration was freer, perspiration more profuse, alvine evacuations took place. The patient became conscious and sensible; the power of moving the limbs returned, with the exception of numbness of the left arm, which was never entirely removed.—*Portal, ibid.* p. 94.

144. M. de Rostaings, lieutenant-general of the army, was seized with a severe fit of apoplexy at the age of 70 years. His physician had him bled in the foot, and applied sinapisms over the feet. The patient was by these means cured. About two years afterwards, having been affected with very severe catarrh, followed by strong apoplexy, it was thought proper to abstain from bloodletting; sinapisms were applied to the feet; emetics and irritating clysters were prescribed, but without benefit; the drowsiness continued and the breathing was stertorous; bleeding was then considered necessary; it was performed, and the patient lived many years after.—*Portal, ibid.* p. 95.

145. A merchant, about 60 years of age, affected with severe catarrhal fever, on the third day of his illness fell into a profoundly comatose state, with stertor, and fulness and hardness of the pulse. I thought it right to bleed him in the foot, and immediately after to apply blisters to the legs; he was bled again from the arm the following morning. This treatment diminished the drowsiness, restored sensation and motion, his catarrhal affection afterwards subsided, and the patient recovered.—*Portal, ibid.* p. 101.

146. A wine merchant, about 60 years of age, had for a long time been subject to periodical attacks of gout, sometimes accompanied with vertigo and deafness. After one attack of gout, there remained a slight paralysis of the upper lid of the right eye. One night he was seized with a severe fit of apoplexy, and died the next day.

There was a large quantity of liquid blood in the ventricles of the brain, and a very firm clot of dark blood in a cavity in the right hemisphere, which seemed to be the effect of an erosion of the cerebral substance. It was large enough to contain a hen's egg; the rest of the brain was of proper consistence.—*Portal, ibid.* p. 106.

147. *Malpighi*, the celebrated anatomist, after having been a long time tormented with the gout and nephritic pains, and also after having been troubled with very strong fits of palpitation, died suddenly of apoplexy in 1604, at the age of 67 years. On examining the body after death, the left lung was found decayed at its upper part; the heart was very large, the parietes of the left ventricle being two fingers in thickness; the gall-bladder contained blackish bile; the left kidney was healthy, but the right was only half its natural size, although the pelvis was much dilated, without doubt with reference to the calculi which had been formed there, and several times been passed with the urine. About two pounds of coagulated blood were found in the right ventricle; the left ventricle contained about half an ounce of reddish serum, in which were several gravelly concretions; the blood-vessels were so full of blood that they were more dilated than natural, the dura mater adhered firmly to the cranium.—*Portal, ibid.* p. 108.

148. A gouty man, 40 years of age, full of cares, was affected at intervals with convulsive movements of the face and hands; he experienced vertigo with a disposition to drowsiness: after being twenty-five hours in such a state, he was seized with apoplexy and paralysis of the left side; on the second day he died. The substance of the brain was found softened, thin in some places, hard and gravelly in others; the right ventricle contained two ounces of concrete blood, its parietes were deeply corroded as if by ulceration.—*Portal, ibid.* p. 110.

149. M. Turgot had a frightful fit of apoplexy at the moment of his experiencing pains in the feet announcing the approach of gout, to which he was subject. He was of strong constitution, very fat, with a red countenance, being then about 50 years of age. He was bled in the foot, which diminished the severity of the apoplexy; sinapisms, a second bleeding in the foot, and some aperient medicine, removed it.—*Portal, ibid.* p. 111.

150. Madame de Château-Moraud, upwards of 72 years of age, had been for a long time subject to gouty pains, sometimes in the elbows, knees, wrists, or feet, or in several joints at one time. At the commencement of the winter of 1782, she suddenly became comatose, with stertorous breathing and loss of motion and sensation. I was quickly summoned, and found the pulse large and hard; however, owing to her advanced age, I thought it right at first to prescribe gentle emetics and stimulants; but the patient could not swallow. I then advised a strong purgative glyster, which she could not receive; sinapisms to the feet were without effect. I had her bled from the foot. The drowsiness appeared to diminish after the bleeding; consciousness soon returned, she spoke and was clear in the head; sensation and motion returned.—*Portal, ibid.* p. 112.

151. A child about 7 years was affected with general emphysema after measles. This child fell into profound coma with stertor, and died apoplectic. A large quantity of blood and water was found in the brain. The other viscera were healthy.—*Portal, ibid.* p. 124.

152. A soldier, aged 20 years, became affected with general dropsy; palpitations of the heart, the pulse being slow and unequal; after a considerable increase of the anasarca, he died suddenly of apoplexy. The omentum contained a great deal of water; there was some gelatinous matter in the chest; the right lung adhered to the pleura in its whole circumference, and there was an abscess in the upper part of the left; the pericardium was full of water, and the vessels of the brain seemed full of it instead of blood. The ventricles contained a large quantity of serum.—*Lieutaud, Hist. Anat. Med.* lib. iii. obs. 371.

153. M. de Beaumont, nearly 80 years of age, after being affected with dropsy, died suddenly of apoplexy, without hav-

ing previously experienced either difficulty of breathing or oppression, deafness or vertigo, to lead to the expectation of such an occurrence. The body was opened, and one expected to find a good deal of fluid in the head and other cavities; but there was nothing but great congestion of blood in the vessels and sinuses of the brain. There was fluid in the other cavities of the body, especially in the abdomen.—*Portal sur L'Apoplexie*, p. 127.

154. M. Duntzfeld was affected with dropsy, and seemed to be recovering from this disease, when he experienced violent pain in the region of the kidneys, and a sudden suppression of urine. The aqueous swelling quickly returned over the whole body, leading to the supposition that he had disease of the kidneys producing suppression of urine. Respiration became extremely laborious, M. Duntzfeld became apoplectic, and died much sooner than was expected. There was a large quantity of water in the abdomen, the kidneys were very large, infiltrated, softened, and the right was full of tubercles, of which some were in a state of suppuration. There was also much fluid in the chest, but in the head there was not more than common, either between the membranes or in the ventricles. The blood-vessels and sinuses were very full of blood.—*Portal, ibid.* p. 127.

155. M. de Montigni, strong, plethoric, fat, and short-necked, naturally disposed to sleep, frequently experienced œdema of the feet, hands, and face, with difficult respiration. Vesicatories and diuretic draughts several times sufficed to cure him. However, the œdema easily returned, he had swelling of the feet and legs, when he was seized with an attack of apoplexy with all its severest symptoms. The pulse being very large and full, I ordered bleeding from the foot, and afterwards sinapisms to the feet. This treatment effected his recovery, with the exception of a numbness of the arm, which remained some weeks. He was several times menaced with

returns of his attacks; and died of malignant fever more than eighteen months afterwards, at the age of forty-one years.—*Portal, ibid.* p. 132.

156. A person, 50 years of age, of sanguine temperament and very fat, was struck with apoplexy, followed by paralysis of either side, of which he quickly died. The arteries of the dura mater were very full of blood; there was some also in the ventricles of the brain, and a large cavity in the right hemisphere, communicating with the ventricle of the same side, filled by a clot of blood.—*Lieutaud, Hist. Anat. Med.* lib. iii. obs. 296.

157. A young man, 20 years of age, much addicted to women, became very quickly and considerably emaciated; no venereal disease could be discovered; he complained of heaviness in the head and frequent vertigo, followed by great weakness when he attempted to move. His strength rallied after a meal. However, it was remarked that his countenance was more red than usual; that his left arm, in which he felt a kind of tingling, began to waste; that it was not so warm as the right, and also that the pulse of this arm was much smaller than that of the right arm; but it was not known whether this difference in the pulse was not natural to him. After a while the patient appeared to be more than usually disposed to sleep; and one morning, he was found dead in his bed of a fit of apoplexy.

1. The brain was much hardened in several places, and its ventricles contained a large quantity of whitish granular puriform substance. The cerebellum was covered in almost the whole of its extent, with a hard concretion, of the thickness of a crown-piece, which had the consistence of cartilage; the medulla oblongata was also a little indurated.

2. There was a compact steatomatous mass in the mediastinum, which had separated the two layers so as to make the pericardium and heart appear somewhat compressed.

3. The liver was firmer than natural, and there were steatomatous congestions in the mesentery.—*Portal, ibid.* p. 144.

158. A tailor, upwards of 50 years of age, is the subject of strong affections of the mind, terror, chagrin, anger. He is seized with hemiplegia of the right side; divers remedies are uselessly employed; electricity is tried, but without success. He dies suddenly.

The blood-vessels of the pia mater were found full of blood on the left side of the longitudinal sinus, and the dura mater in that part was very thick and firmly adherent to the cranium and pia mater; the left ventricle was full of bloody serum, and the fourth ventricle was filled with coagulated blood as far as the foramen magnum.—*Lieutaud, Hist. Anat. Med.* par. 111.

159. A young man, 18 years of age, after the suppression of a diarrhœa, is troubled with cough and inability to sleep; he becomes affected with nostalgic melancholy; slight convulsions supervene, the pulse is small, and the patient somnolent; he becomes worse and dies. On opening the body, the vessels of the brain were discovered full of blood black as ink; the lateral ventricles contained a good deal of fluid.—*Lieutaud, ibid.* p. 152.

160. Madame de L'Aigle, about 62 years of age, very sensitive and thin, had an attack of apoplexy on hearing that her husband had lost his life upon the scaffold; a single bleeding from the foot cured her; she has also been very successfully bled in two soporose diseases which she experienced in the space of two or three years, after some moral impression.—*Lieutaud, ibid.* p. 152.

161. Madame de Flesselles, of a lean and very irritable constitution, about 60 years of age, was seized with spasmodic apoplexy on hearing of the frightful death of her husband; she had at first slight convulsive movements in all her limbs,

and a clonic trismus, with loss of recollection, which seemed to establish an epileptic affection. This clonic trismus became tonic ; pulse very hard, convulsive. Such was the state of this patient when I arrived at her house ; I wished to prescribe antispasmodics, or rather remedies known by this name ; but how was she to take them, since she was unable to swallow ? The pulse being hard and full, I applied leeches to the fundament. We tried to give her an emollient glyster ; the temples were rubbed with volatile alkali, which was also applied to the nose ; two blisters to the legs ; the lower jaw relaxed, the limbs became supple, pulse less hard and more developed ; the countenance resumed its colour, respiration became free, but yet rather stertorous ; I prescribed leeches to the neck ; the respiration, after this second bleeding, became free, and deglutition more easy ; relaxing drinks, antispasmodic draughts, and laxative injections were advised, and the patient recovered. She, however, experienced severe headaches, which came on chiefly at night at the time of the first sleep ; sometimes during the night ; and when she had slept some time she had such an obscurity of vision that she could not see ; but this kind of amaurosis was of short duration ; sometimes momentary only, in one eye ; and sometimes in one, and sometimes in the other. Her hearing has been also much weakened in both ears, sometimes only in one ; but the deafness, as well as the blindness, was of short duration ; they often came on after a meal, or else she experienced them on awakening ; but frequently they disappeared soon after leaving her bed, and sometimes by means of a foot-bath. These symptoms, which always led to an apprehension of a return of apoplexy, have required leeching from time to time, with purgatives, &c. The patient is now well, and has lived several years without any disposition to apoplexy.—*Lieutaud, ibid.* p. 153.

162. A valet of M. de Saron was seized with apoplexy, followed by paralysis, when he was told that his master was

about to die on the scaffold. He was cured of his apoplexy, but not of the paralysis, which was succeeded by a malignant fever, of which he died.—*Lieutaud, ibid.* p. 155.

163. Mademoiselle de Cheveru, who had good health whilst imprisoned for many months, was seized with apoplexy some time after she was set at liberty, having experienced a strong mental shock. I had her bled in the foot, and ordered blisters to the legs; she recovered sensation, motion, and freedom of speech; she was able to swallow some refreshing aperient draughts; the apoplexy was removed, but it was followed by continued fever with irregular paroxysms, which brought on marasmus, and finally destroyed her life.—*Lieutaud, ibid.* p. 155.

164. M. —, 60 years of age, was extremely sensitive, irritable, and moreover very passionate; one day she put herself into such a rage with one of her servants during her toilet, that she rose up on a sudden, moved about as if she were agitated by convulsive movements, and uttered loud cries; but soon she fell, lost her voice, recollection, sensation, and motion; her breathing became laborious, rapid, interrupted, and stertorous; the intervals between inspiration and expiration were prolonged. In spite of the convulsive movements which preceded the attack of apoplexy, I thought it right to bleed from the foot, considering that the pulse was hard and tight, and that no cause which could really weaken the patient had preceded it; but I experienced many difficulties on the part of her friends in getting it done. However, it was performed, and proved so beneficial that the patient soon regained her recollection and in part her sensibility, but neither the power of moving half the body, nor her speech; blisters were applied to the legs; deglutition being more free, a laxative draught was prescribed, also a few spoonfuls of an antispasmodic julep, and emollient injections; the bleeding was repeated the following day; its effect was such that the

patient was able to utter sounds, but not to articulate. It was said in Paris that this lady had the voice of a parroquet. Motion and sensation began to re-appear in the paralytic side, but the pulse was always hard and full. I wished her to be bled again, but it was in vain that I ordered, on account of the opposition that was offered. It was in vain that I said there was some affection of that portion of the brain connected with the nerves of the organ of voice, which suspended its influence upon that organ; that bleeding might remove it, and re-establish the voice, as the former bleedings had restored the functions of the other nerves; the patient was not cured, although she had recovered her senses; she lived some time, with a hemiplegia, and without being able to articulate a word; a continued fever supervened, and terminated her career.—*Lieutaud, ibid.* p. 156.

165. M. l'Abbé de Boismont, about 66 years of age, extremely sensitive and passionate, for a long time complained of cramp in the muscles of the legs, especially of a night, and several times had felt a tingling in the fingers and toes. One day, after a meal, having been troubled with some mental affection, he was attacked with true apoplexy. I was summoned, but did not arrive until after the patient had recovered his recollection; he still had complete paralysis of the left upper extremity, and the mouth was drawn to the right side. Pulse full, countenance flushed. As he had formerly suffered from piles, I ordered leeches to the anus. This bleeding was repeated, and blisters were applied to the legs and one of the arms. Laxative draughts were administered. Afterwards the water of Balaruc, and other tonics. The patient improved, and from the great attention that was paid him, lived some time; he died with marasmus.—*Lieutaud, ibid.* p. 158.

166. M. de L——, 42 years of age, thin, irritable, and extremely sensitive, after having led a life of dissipation, was seized with cramps and pains in the muscles of the extremi-

ties; convulsive movements of the muscles of the face, and afterwards in those of the fingers, supervened. The head became dull, and sensation diminished; sometimes he seemed in an extasy, and sometimes he was cataleptic; at last, he was seized with true apoplexy, with stertor, and loss of motion and sensation. The pulse, naturally tight and frequent, was more developed, hard, slow. I advised bleeding, in spite of his being considered an enfeebled person with nervous disease, circumstances which, both then and at the present day, are sufficient in the opinion of many physicians to proscribe blood-letting. The patient was bled with leeches applied to the anus; his face, which was pale, became a little coloured; the breathing was no longer stertorous, movement and sensation returned; deglutition and speech became more free, the head more clear; the apoplexy was removed. He lived some time after, and died from chronic lethargy. He was so emaciated, that his body was in a state of atrophy.

P. M.—The substance of the brain was hardened in some parts; the vessels were rather full of blood, and there was more fluid in the ventricles than natural.—*Lieutaud, ibid.* p. 159.

167. Mademoiselle Pardon, about 22 years of age, extremely sensitive and irritable, rather thin, sometimes menstruating profusely and at other times scantily, had been subject at various times to spasmodic contractions of various muscles, and drowsiness, which were relieved by antispasmodics, anodynes, and glysters. The attacks had recurred so frequently, that they occasioned less alarm than at first; but at last, after having experienced convulsive movements in the muscles of the trunk and extremities, she became drowsy, and remained without motion or sensation from eleven o'clock A. M., until nine o'clock P. M., at which time I saw her; the muscles were completely relaxed, the lower jaw dropped, so that she lay with her mouth open; deglutition was interrupted and the breathing stertorous: the pulse was small, slow, and hard; the countenance flushed, the conjunctiva rather red;

the skin warm, and the limbs very flexible. The case was, therefore, one of well-marked apoplexy succeeding to carus hystericus. Menstruation was obstructed at the time, and I ordered bleeding from the foot; soon after this, the patient was able to swallow a gentle fluid emetic; emollient glysters were administered. On the following day I found the patient still without recollection, but experiencing a commencement of sensation and motion in some parts; for she drew up the limbs when slightly pinched; the pulse was more developed, more frequent, less hard. Leeches were then applied to the labia, after which, she could take fluids in considerable quantity; during the day her nose bled freely, which seemed to relieve her, for she began soon after to articulate a few words, and could move the limbs; in the evening she had recovered her sensibility and natural power of motion, and eventually recovered. The year after she was married; she had a family, and continued to enjoy good health.—*Lieutaud, ibid.* p. 169.

168. Madame Cour, 37 years old, tall, thin, and extremely sensitive, the mother of several children, was very subject to convulsive affections, apparently hysterical; these were combated with anti-spasmodics and opiates, and she followed her usual domestic occupations. Without being previously worse than usual, she became drowsy, lost sensation and the power of moving, the muscles became relaxed, and the mouth remained open, the saliva flowing from it. Pulse soft, slow, large and irregular, sometimes intermitting; surface rather warm; pupils much dilated and insensible to light. Before this attack, she had experienced numbness and defective sensation and motion in the right arm. Menstruation having been obstructed for two periods, I ordered twelve leeches to the parts of generation; small quantities of volatile alkali, and two blisters, one on the right arm and the other on the right leg; also a stimulating injection. On the following day sensation was returning; light made an impression on the eyes; deglutition was free; the muscles of the lower jaw were no longer relaxed; but she

could not speak, and had but little power of moving the limbs. The same treatment was continued, and, in addition, ordered a few doses of aperient medicine, which procured two or three bilious stools. Speech returned, as well as the sensation and motion of all the limbs, with the exception of the right arm, which remained paralytic.—*Portal, sur L'Apoplexie*, p.173.

169. A woman, aged 47 years, of a sanguine and melancholic temperament, living in poverty, was suddenly attacked with apoplexy, and paralysis of the whole of the right side. By means of suitable remedies she recovered; but five years afterwards she died suddenly of apoplexy. The vessels of the brain were full of air; there was serum in the ventricles, and a clot of blood as large as a hen's egg in the substance of the optic thalami. The fourth ventricle was also full of coagulated blood.—*Portal, ibid.* p. 184.

170. A young man of athletic constitution, and living on good fare, became deprived of sensation and motion; at last, he was suddenly seized with apoplexy immediately after a meal whilst in the act of stooping; he also had convulsions, and died in fifteen hours. A good deal of blood was found under the dura mater, but no extravasation in the ventricles.—*Portal, ibid.* p. 185.

171. A young woman, after a fit of epilepsy, falls into fatal drowsiness. On examining the body, there was found a good deal of water of a yellowish colour in the brain, principally in the situation of the optic nerves.—*Portal, ibid.* p. 185.

172. A child, 12 years of age, subject to epilepsy, experienced so severe an attack of it, that he died apoplectic. The brain was found rather hardened and inflamed, and there was coagulated blood in the ventricles.—*Portal, ibid.* p. 186.

173. A man, 40 years of age, of melancholic temperament

had an attack of epilepsy, and had several others in the space of four years, complaining often of an obtuse pain in the right side of the head. He was also troubled with piles; and after trying various remedies, he died apoplectic. The substance of the brain was hardened, and there was an abscess with a cavity as big as a hen's egg, corresponding to that part of the head where the patient used to suffer pain.—*Portal, ibid.* p. 186.

174. A young gentleman, 22 years of age, died of apoplexy, after a fit of epilepsy. His constitution was strong; he had been very subject to convulsions in his infancy, especially during dentition, which were sometimes succeeded by epilepsy. In order to prevent the attacks of epilepsy, I advised bleeding in the foot from time to time, two or three times in a year; also mild aperients, simple diet, and pills containing valerian, assafoetida, and a little opium; occasional warm baths, and emollient injections. This treatment had diminished the frequency of the epileptic fits, and seemed to promise a cure; but in order to hasten it, he was placed under a quack famed for curing epilepsy; divers drastic purgatives were prescribed, as well as sudorifics; exciting articles of diet; the epilepsy became more frequent and more prolonged, and at last terminated in apoplexy. In a post-mortem examination, the following appearances were discovered. The veins and sinuses of the brain were full of black blood; a large quantity of reddish serum in the ventricles and between the dura and pia mater; the vessels of the brain were full of blood, and as if varicose; the cerebrum, cerebellum, and medulla oblongata were in some parts harder, in others softer, than natural.—*Portal, ibid.* p. 187.

175. A woman, 20 years of age, was subject to headaches, for which many remedies were tried, without success. Vertigo and fainting fits supervened; at last an apoplectic stupor came on, which quickly destroyed her life. The veins of the dura mater were so full of blood as to appear varicose; the dura mater itself was very dense and thick, especially towards the base of the cranium.—*Portal, ibid.* p. 199.

176. A young man, 19 years of age, complained of severe pain in the head, followed by vomiting ; a high degree of fever supervened ; the patient fell into a kind of stupor and delirium, succeeded by a comatose affection, of which he died. On opening the cranium, the blood-vessels of the pia mater were so filled with blood, that at first sight this membrane appeared quite stained with it. There was muco-purulent fluid in the ventricles.—*Wepfer de Apoplexia*.

177. A man was seized with severe pain in the left side of the head, succeeded by pain in the abdomen ; he had an attack of apoplexy, and perished. The abdomen was examined ; the mesentery was very large, scirrhus and ulcerated. Within the cranium, the right carotid artery was completely ossified, and as it were petrified, near where it enters the cranium, so as to be scarcely permeable to blood ; but the vertebral artery of the same side was three times the size of the left.—*Portal, sur L'Apoplexie*, p. 201.

178. A woman, who had been subject to headaches for some time, was seized with a severe attack of apoplexy, and soon died. On opening the body, the blood-vessels of the dura mater were found varicose and full of black blood ; also a great deal of blood in the brain.—*Portal, ibid.* p. 201.

179. A man, 45 years of age, was affected with distressing pains in the head ; at last he became somnolent, and six hours afterwards died of apoplexy. The blood-vessels of the pia mater were empty, the lateral ventricles contained a good deal of bloody serum ; the third ventricle was full of grumous blood, of which there was some also in the fourth. The blood having been removed, a cavity full of the same fluid was discovered in the medullary substance of the brain.—*Portal, ibid.* p. 202.

180. A female, who generally lived well, complained of a heavy pain in the head, and experienced vertigo and palpita-

tion of the heart. This state lasted a month, when she died of apoplexy after a meal. The lateral ventricles of the brain were found full of blood.—*Portal, ibid.* p. 202.

181. A man, 40 years of age, on a sudden felt a very acute pain in the right temporal region, and was affected with paralysis of the same side. He became apoplectic, and died on the fourth day. On examining the brain, there was found a mass of grumous blood, which compressed the neighbouring parts of the viscus.—*Portal, ibid.* p. 203.

182. A man, 40 years of age, was tormented with very severe pain in the head; he became comatose and died. The cranium was very thick, the sutures were obliterated, and the brain was full of serum.—*Portal, ibid.* p. 204.

183. A child, 14 years of age, subject to lumbrici and copious bleeding from the nose, lost his natural vivacity and cheerfulness without any manifest cause, and became as it were stupid. He was found, after a meal, lying in a state of apoplectic drowsiness, with his hands upon his head, without speech and without motion. His pulse was feeble, sinking, and intermitting; breathing with difficulty and frothing at the mouth. He died eight hours afterwards. About two spoonfuls of black clotted blood were found in the ventricles of the brain and in the substance of the cerebellum.—*Portal, ibid.* p. 204.

184. Mademoiselle le K——, about 32 years of age, had been for a long time affected with nervousness, accompanied with spasms of the limbs, and sometimes with severe pain in various parts of the body; she had experienced on one occasion such violent pain in the region of one of the kidneys, with suppression of urine, that it was attributed to stone in the kidney, but she was relieved by appropriate treatment. The patient was accustomed to take cold baths. She was advised to put ice contained in a bladder upon her head, and also to put some

in her baths, which was done at first in small quantity without inconvenience. The quantity of ice was increased, both upon the head and in the baths; the patient no longer complained of any pain; she fell into the most profound sleep; her breathing became stertorous. She was immediately taken out of the bath, but was without sensation or power of motion. She was dead. A large quantity of blood was found between the membranes of the brain and in the ventricles; the substance of the brain and the medulla oblongata, as well as the other viscera, were healthy.—*Portal, ibid.* p. 234.

185. M. B., about 77 years of age, of good constitution, experienced an attack of diarrhœa which weakened him and produced some emaciation; he had also had symptoms of irregular gout. By tonics and nourishing diet his health was restored, but too quickly; for he soon had an attack of severe apoplexy. I did not hesitate to bleed him, and to apply blisters to the legs. Deglutition being very imperfect, the medicine I prescribed was swallowed with extreme difficulty; an injection was also given, and by these means several alvine evacuations were procured; the breathing became more free, recollection returned, the patient spoke; but numbness of the right side remained, which seemed to threaten hemiplegia; this, however, did not happen; for by continuing the alterative medicines, the blisters, and occasionally purgatives, the patient was completely cured.—*Portal, ibid.* p. 252.

186. M. de M——, about 52 years of age, strong, vigorous, stout, and of ordinary height, having habitually a ruddy countenance, a great eater, had been for some time at intervals subject to difficulty in passing urine and occasional retention for some hours, which ceased of its own accord, and sometimes by the expulsion of some small gravel. He had also suffered from pains in the joints, which made him apprehensive of gout. One day, after dining at Versailles, he arrived at Paris in such a state of drowsiness, that he was taken from his carriage to

his bed without being awakened. I found him very drowsy, with noisy respiration, the pulse full, and countenance flushed. The servant who had waited at dinner told me, that, before leaving Versailles, his master had complained of difficulty in making water, and that he had passed very little urine the night before. This information, coupled with my knowledge of his having passed gravel, and suffered occasionally from suppression, assisted me not a little in determining upon what course of treatment I should pursue. I ordered bleeding from the arm instead of an emetic, which had been previously suggested. A copious bleeding having been practised, M. de M—— experienced some degree of nausea; it was again suggested to make him vomit, but I did not consent to it; on the contrary, I ordered another bleeding and an emollient glyster; the patient pronounced a few words badly articulated; soon afterwards he asked, in a very low tone of voice, to go to the close stool; a pan was placed under him, in which he passed a good deal of urine and fœcal matter; speech and deglutition became more free; some mild aperient draughts and emollient glysters were given, and in the end his health was entirely re-established.—*Portal, ibid.* p. 253.

187. A person, 60 years of age, who had several external ulcers, fell into a fit of melancholy, when the ulcers cicatrised; his memory failed, his judgment was weak; after some remission for six months, he became as it were stupid, and fell into a fatal sleep. The brain was found to be not a quarter of its natural size, and the remainder of the cranial cavity was occupied with fluid extravasated between the membranes of the brain.—*Lieutaud, Obs.* 336.

188. M. Sallorf had been very subject to herpetic eruptions over chief part of the body, which, after having lasted for a long time, were at last quickly cured. However, one evening, after a very light supper, he had so severe an attack of apoplexy, that it was feared he would die. Convinced that the

attack was occasioned by the repression of the cutaneous eruption, although the pulse was full and strong, I did not bleed him, hoping that cordials and sudorifics, aided by blisters and sinapisms, might bring back the affection of the skin. I wished at first to make him vomit, but deglutition was so impeded, that the patient could not swallow the remedies which I prescribed; irritating injections were also uselessly advised, for the patient could not retain them. Blisters to the legs and sinapisms to the feet did not appear to produce any effect. Two hours afterwards I saw the patient again, and ordered bleeding, regretting that I had not done so before. The pulse being full and hard, the stupor profound, was I in want of any other guide? He was bled in the foot with so much success, that his respiration became more free, his pulse more developed, and he could pronounce several words; I advised a second bleeding; some hours after a copious sweat was established, and M. Sellorf was cured, with the exception of slight numbness of the arm.—*Portal, sur L'Apoplexie*, p. 263.

189. After more than a year of cerebral disorder and fits, a legal gentleman died apoplectic. The ventricles were found distended by water, evidently of long standing. The brain remarkably congested. Particularly about the crura in a state of ramollissement. The cerebellum almost in a state of liquefaction. With such a brain, this individual was able to use his intellect, with scarcely any diminution, two or three days before death.—*Hull on blood to the head*, xxv.

190. S——, aged 46, the mother of eleven children, suffered, about two years since, considerable losses from the hæmorrhoidal veins, and from vascular tumors of the rectum. I counselled the removal of *these* with the ligature, which was effected. An approaching parturition forbade delay. The hæmorrhage returned not; her childbirth was natural; but her strength was regained imperfectly. She now returned to the management of her own surgeon. In a few months she began to complain

of occasional pains in the head and back of the neck, which seemed to observe some periodicity, accompanied by sickness. Catamenia very profuse. Countenance pallid. Loss of flesh and strength. *The intellectual functions were perfect; no vertigo; no senses impaired.* The action of the heart was sometimes irregular and violent, the pulse feeble. The treatment was gentle. Lecches, mild aperients; diet mild but nutritious. A weak infusion of columba. The liver could be felt extending to the pelvis. Frequent bilious vomitings.

June 11th. Sickness.

12th. Sat up. Had been unusually free from headache for the last month. Then felt some slight degree. A restless night.

13th. She was well enough to sit up in bed, wash, and dress her hair. But about eleven o'clock she suddenly threw herself nearly out of bed, became insensible, and expired within two hours.

P. M. The abdominal viscera were found healthy, the liver free from disease; the right lobe elongated quite to the pelvis, the other lobes rudimental. The left ventricle of the heart was greatly hypertrophied, valves normal. All the organs unusually bloodless. The brain *generally* very firm, no congestion. But on slicing the left hemisphere, a clot of blood, two ounces in weight, was found in a portion of brain which had undergone softening, the hæmorrhage having arisen apparently more from the morbid state of the vessels than from determination of blood to the head.—*Hull on blood to the head*, xxvi.

191. C—— was a commercial traveller, for wine and spirit. He had a large, capacious frame, with room for any distension of stomach. This organ was seldom in repose, through breakfasts on meat, luncheons, tavern dinners, suppers—porter, wine, spirit. Is it wonderful that one evening, after a series of repasts, he complained of invincible *sleep*? That, early in the night, having risen from bed and laid hold on the matula, he fell with a frightful “lump” upon the floor, became sterto-

rous, senseless, and very soon a corpse? His family surgeon had blooded him very copiously, so soon as he was summoned.—*Hull on blood to the head*, p. 22.

192. A young surgeon was dining with a short, fat, neckless country gentleman, who took no real exercise, none on foot. This gentleman lived sumptuously on meat and wine. At *this* dinner he was purplish from distended veins; heavy in conversation, *sleepy*. The medical guest longed to apprise him of his danger and prevent effusion. From a reprehensible delicacy he abstained, and in a few days that generous host died of an apoplectic stroke; a large cupful of arterial blood having welled into the centre of his brain. Thus testified necrotomy. Here the lancet was indicated as a preventive. When the crisis arrived, it was most freely used, but utterly powerless.—*Ibid*, p. 24.

193. S——, foreman of a mill; stout; ventri deditus: was under the care of a physician for disorder in the liver, which was treated with mercury. On the 8th of February, 1841, this had produced a hypercatharsis so prodigious, that his family surgeon found him nearly bereft of all power and all *pulse*. By judicious attention he rallied partially; and twelve hours after was visited by myself in consultation. I found him presenting all the cerebral symptoms of imminent apoplexy: lethargic, flushed. Yet the great debility and velocity of his pulse forbad an appeal to any other system than the nervous. Accordingly, mustard cataplasms were applied to his feet. But he went on into all the degrees of apoplexy, and died within twelve hours more.—*Ibid*. p. 25.

194. C——, a stout, unwieldy lady, near 70, fell into a coma whilst walking out after dinner. Her surgeon administered an emetic, let blood twice and freely, and ordered a purgative. Mustard cataplasms. In a few hours consciousness was displayed; in a few days her intellect was restored. But her

power of walking was not regained for months. I was called to this patient within two years, and found her apoplectic and moribund. In her usual health in the morning, she had taken a purgative, which had produced a hypercatharsis. After the evacuations she is struck with apoplexy. Emptied vessels, great debility: yet blood determined fatally to the head!—*Hull on blood to the head*, p. 26.

195. H. J., aged 84, admitted February 14th, 1840, with fracture of the arm. She had fallen four days previous in a fit, and was found senseless. Having recovered her speech, she was brought to the hospital. I found a fracture of the right humerus, with great effusion of blood. She answered imperfectly; could give no account of the accident nor the day. During her stay she was very riotous, calling out, and trying to get out of bed. Her answers were very incoherent, her manner unnatural, as I had known her to be a quiet and respectable woman; she remained seven weeks, and during the last three improved in mind and manner—sat up, was more cheerful, and left on the 4th of April, *cured*. On the 27th of September she was again admitted, having fallen and broken her leg. She had evidently had another fit, was dull, sleepy, and spoke with difficulty. Pulse feeble and fluttering. She improved for a week or ten days, but then became very jaundiced, could not pass her urine, and remained comatose four or five days. Excessive purging came on, and she was more sensible; answered questions if loudly asked, and took nourishment freely. Coma again returned, and she died on the 20th of October, twenty-three days after her second admission. I examined the body. There was no attempt at reparation in the leg. The scalp was found to adhere firmly to the pericranium: this very firmly to the cranium. Dura mater loose and flabby. Removing the dura mater, I saw the surface of two enormous coagula of a pale pink colour, membranous, dense, strong. The coagula were composed of dark, grumous, partially disorganised blood. These extended over the anterior,

middle, and posterior lobes of the brain, resting in front, where they were thickest, upon the orbital plates; encroaching to a most extraordinary extent on the cranial cavity, and compressing the brain. The distance of the brain from the skull, at the level of its sawn edge, was from six to eight-tenths of an inch. The posterior lobe was in contact with the cranium. The left hemisphere was more compressed than the right.—*Hull on blood to the head*, p. 34.

196. A druggist's apprentice had been sent home to his friends for increasing *sleepiness* and loss of mental energy, but without headache. When I saw him, nothing was detegible but these symptoms, augmented and augmenting. Derivatives and antiphlogistics were prescribed, and in a few days the lad died apoplectic. Disorder of three weeks' duration. He was of a scrofulous crasis. Upon necrotomy, I found some half dozen abscesses, each big as a boy's marble, composed of a greenish pus, and dispersed through the cerebral substance.—*Ibid.* p. 37.

197. N—— laboured under acute rheumatism, and had been treated with copious venesections. Suddenly the pains ceased; he became heavy, senseless, stertorous. His pupils became small, fixed. He died in an hour.—*Ibid.* p. 52.

198. C——, æt. 57. Sept. 12th. Had rheumatism of the knees and one shoulder. Oct. 12th, her pains suddenly ceased, and in lieu she was flushed, with intense headache. Relieved by purgation. Oct. 15th. Again headache, photophobia, pulse intermittent; lastly, coma. She was restored by free counter-irritation with nitric acid, and *internal stimuli*. 16th. Coma, and successful irritation. 18th. The same history. The coma ceased; but headache remained up to Nov. 5th, when it yielded to the rheumatism returning in the shoulder.—*Ibid.* p. 53.

199. Samuel Jeckell, æt. 58, obiit die ix Feb. 1842. Body

in good condition. Abdomen and thorax healthy, save old adhesions of the pleura. Scalp much injected. Brain firm, congested *extremely*. Arachnoid thickened, opaque, having fluid subjacent. The ventricles had a small quantity of fluid: the large cerebral arteries were full of blood. He had long been subject to daily epilepsy, was frequently drowsy, had strabismus, and died of apoplexy.—*Hull on blood to the head*, p. 82.

200. A clerk, æt. about 30, had a short neck, a gibbous back. Walked little, ate heartily. Several times, after dinner, he fell senseless on the floor. He would soon recover his senses, remaining dull and debilitated many days. He was repeatedly cupped in the nape; dieted; and, above all, he hired a residence distant from the office, so that he took due exercise. This patient entirely got rid of his apoplectic menaces; and, in spite of his figure, enjoys health at the age of 55.—*Ibid.* p. 83.

201. A married woman, æt. 50, whose monthly symptoms had ceased, fell down in an apoplectic sleep, without stertor, without convulsion. Her surgeon and myself agreed not to diminish power by blood-letting. Her pulse was fair. A genial perspiration, warm, and not excessive, shortly appeared. Day after day this exudation continued, and as luckily small quantities of fluid could be swallowed, we supported her more than a fortnight, when she gradually recovered her senses, and resumed her voluntary power.—*Ibid.* p. 83.

202. C—— was thin, his vessels undistended, his neck proportional. He was active on foot, temperate in all things. He suffered fits of giddiness. I deemed his vertigo rather nervous than sanguine; but he fell one day in a fit of stertorous apoplexy, with fearful convulsions. A surgeon blooded him copiously, and proposed the rapid introduction of mercury, which was carried by a third consultant. He expired, notwithstanding, in about forty-eight hours. On dissection, a great

mass of blood was found to have broken up the brain at the centre. The basilar artery was ossified: and here was the solution why a man, so young as 35, should have afforded this signal triumph to death.—*Hull on blood to the head*, p. 84.

203. A woman, æt. 20, had been three years occasionally subject to severe pain in the head, sometimes attended with purulent discharge from the right ear. The attacks had been, the last few months, less; and she had latterly been quite free. February 2nd, 1829, she was attacked with severe headache. Pulse 90, and rather full. Strong purgatives were given. On the 4th, after full action of the remedies, the pain was much less. Next morning the pain suddenly returned; but instead of occupying the back part only, it became acute in the right temporal region, affecting the right eye, partially closed and suffused. Iris contracted and immoveable. She became slightly delirious, but perfectly sensible when roused. She was bled to $\bar{3}$ xxx.; blood buffed and cupped. The following morning she was bled to $\bar{3}$ xxiv. there being no amendment. In the evening $\bar{3}$ viii. more. On the following morning, the patient became comatose, pulse 140, scarcely to be felt. Mr. W. wished to open the temporal artery, but was prevented. After five hours she expired.

Eighteen hours after death. The dura and pia mater presented marks of acute inflammation. Vessels of the former excessively turgid. Right ventricle filled with dark, foetid pus. Around, to some extent, brain disorganised. The other parts of the right hemisphere and a small portion of the left were also pultaceous. At the inferior part of the right middle lobe was an ulcer, three lines in diameter, of the dura and pia mater, communicating by a sloughy sinus with the ventricle. A part of the petrous temporal bone was carious. Through this part, corresponding to the aperture in the membranes, was a perforation into the cochlea. The membrana tympani was obliterated. Slight lymph on the anterior part of the left hemisphere.—*Ibid.* p. 87.

204. C——, fond of promiscuous and bibulous company—in fact, a notorious bon vivant, and often drunk, was seized with otorrhæa and post-like deafness. Months elapsed. Then one day, after a hearty dinner, he was seized with an insensibility, for which the surgeon bled him. That this attack resulted from crapula was rendered probable from a spontaneous and copious vomiting. He recovered entirely his sense, no paralysis left, only vast debility. After some days, another attack led to another copious depletion, which the great force of the pulse induced us to hazard. A third, and I believe a fourth, the final, attack was encountered by fresh venesection before I arrived. All this time the otorrhæa remained unmitigated—a flow of inodorous pus. The last attack and blood-letting were succeeded by awful convulsions, and death in a few hours. Autopsy denied.—*Hull on blood to the head*, p. 93.

205. Jane Waters, æt. 20, at the full period, was seized, at half-past eight, A. M., December 15th, 1840, with pain in the head and loss of sight—felt as if she should “go crazy.” By ten o’clock she became insensible, and convulsions recurred at intervals of half an hour until death. At half-past eleven a surgeon opened a vein, but could only obtain eight ounces of blood. Sinapisms to her legs. Half-past eleven, P. M., the os uteri largely dilated; she was easily delivered of a living child. The convulsions abated, but no consciousness returned. Countenance livid, eyes prominent and congested, pupils contracted on the approach of a candle. December 16th, half-past seven, A. M. She was again bled to fourteen ounces with apparent relief, but she died at eleven. Autopsy forty-eight hours after death. *Head*. No trace of disease found. The brain firm and healthy. Vessels having their ordinary fulness; serous cavities their natural fluid.—*Ibid.* p. 94.

206. Ann Newton, aged 24 years, a servant, was admitted into hospital on the eighteenth of October. She had a pale and anxious face, was extremely nervous, and cried whenever

she was spoken to. She complained of pains in the knees, and of general debility; she had also slight soreness of the throat, but there was found nothing visibly wrong in the throat, nor was there any swelling or redness of the joints affected with pain; her legs, however, swelled towards night; she had a bad appetite, suffering nocturnal perspirations, and had a slight barking cough; catamenia had been absent for the last two months, from the commencement of which period she dated her general ailments. She had had, at the age of sixteen, severe rheumatic fever, which at that time confined her to bed for eleven weeks, and she was then also delirious. From that time forward she was, she said, "short in the breath," and she had suffered also from slighter attacks of rheumatism ever since that first illness. There was a cooing or mewling sound with the systole of the heart, chiefly at its apex. She derived no relief from colchicum, iodide of potassium, bark, or mineral acid with henbane. During the first week of November she complained of being deaf, or rather she acknowledged that she was deaf, when she was asked if such was the case; but on the 12th and 14th the deafness was much increased, and accompanied by pain in the right side of the head; the ear on that side was found also to be the deafer. There was much pain and distress when the mastoid process of the right side was tapped, but there was no discharge; the external meatus was dry; there was ronchus and slight crepitation about the lower lobe of the right lung. Her head was shaved, leeches were applied twice to the mastoid process, and mercurial medicines administered. In the course of the day, on the 14th, she screamed and shrieked violently with pain in the head, and soon afterwards became delirious. In the evening she was comatose, breathing with some stertor: the pupil of the right eye was very much dilated, while the left was contracted, and the left conjunctiva was inflamed, with some pus in the eye. She sunk gradually, and died in this condition on the 17th, P. M. In the right hemisphere of the brain was found a considerable clot of blood, occupying the ventricle, and the substance of the brain around it was

bruised and broken down. Brain itself quite soft, and blood and serum filling up the chinks between the convolutions.—*Prov. Med. Journal.* No. 114, vol. v., p. 183.

207. I was hastily summoned to visit a gentleman who had an attack of apoplexy. From the nature of the summons, I fully expected to find that I had been sent for by some member of his family, and that from his family I should hear the particulars of his attack; to my very great surprise, I found the gentleman himself had sent for me; that he was, at the time of my reaching his house, apparently well. The attack had been severe, and he had been for some time insensible; he was fearful of a return of it, and, being anxious to go out to shoot on the following day, he had desired my advice. I, of course, warned him against any such attempt, and told him he must keep perfectly quiet and unexcited. The next day an injudicious friend called on him, and entered into a long and earnest conversation with him on business in the West Indies, where both had property. In the course of the conversation, in which he was much interested, he suddenly lost the thread of his ideas; he could not answer questions put to him, and vainly endeavoured to overcome the confusion of which he was conscious. I was sent for again. On my arrival I found nothing apparently wrong with him—that is, nothing palpable. His intellect was perfect as ever, but he complained that he could not recollect his words. He had no pain, but his want of recollection was painfully evident. He repeated words constantly, being unable to follow up his ideas, or to assure himself of what he had last said. By slow degrees he lost the power of his right side; medical treatment was ineffective; at length consciousness deserted him; he fell into a deep sleep, and in that state died. I opened the head, and found in the upper part of the left hemisphere a cavity containing about two ounces of pus, and in the middle of the pus a small mass of a toughish consistency and a dull red colour, which was, no doubt, the extravasated blood. The effusion was consequent on the brittleness of the arteries.—*Ibid.* vol. v., p. 184.

208. M. L., strong, robust, and stout, appeared to enjoy very good health. He regularly partook largely of alcoholic drinks, and drank besides a prodigious quantity of beer. After a day passed in a state of intoxication, he became suddenly affected with paralysis of the muscles of the face on the left side; but with the aid of bleeding and some leeches to the neck, he soon recovered, and resumed his former habits. One day, whilst attending mass in the cathedral, he felt unwell, had a profuse perspiration, and was obliged to go out. He went to a neighbouring *café*, and drank a glass of wine. He had scarcely swallowed it when he experienced severe pain in the epigastrium: the pain increased, he became vertiginous, and a few minutes after died.

P. M. twenty-four hours after death. Arachnoid and pia mater very red, thickened: brain generally soft; choroid plexus thickened, indurated. Right optic thalamus uneven, of a greyish, unnatural colour; the cerebellum presenting in the centre of its white substance a species of tubercle, greyish, projecting, half an inch in depth, and three lines in diameter. Its interior was a little softened, but it contained no blood. The stomach was large, red on its exterior; its mucous membrane was covered with projections of a bright red colour upon a brownish base, with numerous dark vessels. In some points the membrane was thickened; the duodenum was dark and gelatinous; the liver fat; the spleen gorged, tearing easily; the heart was larger than natural, and its substance was easily torn.—*Richond, de l'influence de l'estomac sur la production de l'apoplexie.* 1824. p. 95.

209. A soldier entered the hospital to be treated for jaundice; he was reserved and taciturn, but appeared to have no other disorder but that for which he was admitted. For several days he was treated with febrifuge medicine: he afterwards took an emetic, soap pills, and lastly a purgative. On the seventh day, during the night, he had severe pains in the abdomen; the next day he was deprived of sensation and movement in the limbs; respiration difficult, stertorous. He died in the night.

P. M. Dura mater injected; arachnoid red, thickened; pia mater congested; at the upper part of each hemisphere, and about half an inch in depth, was a portion of brain much more yellow than the surrounding parts, and presented a very decided softening. The cerebellum presented the same diseased appearance as that described in the former case. There was no extravasation of blood in the brain, or upon its surface. The lungs were full of black blood. The valves of the aorta had some cartilaginous points. The stomach was large, and showed signs of acute inflammation; and contained a considerable quantity of dark fluid, which on examination proved to be blood. The liver was *congested, yellowish*; the bladder *red, inflamed*.—*Ibid.* p. 98.

210. M. Sch——, 45 years of age, of a robust complexion, had suffered for some months from indigestion, and complained often of pain in the head. His complexion was become yellow, and although he preserved his gaiety and the appearance of health, his friends remarked an alteration in his manner. On the 13th of October, 1822, he was much annoyed by some pecuniary difficulties: however, at the time he most despaired, he received money, and from a state of profound sadness passed rapidly into a state of excessive joy. He made a more hearty dinner than usual, and in the evening, contrary to custom, supped with a friend; he retired at eleven o'clock. The following morning he was found dead, and even cold, showing that he had been dead some time. The body was examined the next day.

There was an offensive exhalation from the body; the abdomen was enormously distended with gas; bloody fluid escaped from the mouth; the face was black from excessive injection of the capillary vessels; the sides of the chest were livid, as if bruised. The intestines presented a great number of brown spots on the outside, some of them corresponding with deep injections of the mucous membrane; stomach very capacious, mucous lining everywhere inflamed, and a dark spot, as

if charred, near the pylorus; the part corresponding to the greater curvature was very thin and pulpy. The pericardium contained some serum, the heart was enormous; the left ventricle had at least three or four times its natural capacity; right ventricle very small and thin; the parietes of the left ventricle were remarkably thickened. Aorta enormously distended. Lungs full of blood and serum. Vessels of the dura mater injected, the arachnoid pale and rather thickened. Pia mater much injected; substance of the brain throughout in its natural state, but the vessels running through it were rather distended with blood. The lateral ventricles contained a little serum. There was no clot of blood, no hæmorrhage.—*Ibid.* p. 101.

211. A lady, 55 years of age, was frequently the subject of severe colic, and thinking she ought not to mix water with her wine, she drank it pure and *without moderation*. She was rather somnolent, and had occasional pain in the head. One night she was seized with an attack of apoplexy, fell upon her left side, and vomited the wine she had been drinking. She died six hours afterwards. On examination, the colon was found narrowed, *contracted*; there was a disagreeable gangrenous exhalation from the bowels, which were here and there of a deep blood colour; the liver adhered to the diaphragm in chief of its extent; its exterior was livid, its parenchyma whitish; there was some bloody serum in the pericardium. Ossification was commencing in the aortic valves. There was considerable extravasation of blood upon the brain, and a cavity in the cerebral substance filled with blood, the sides of which were uneven and as it were corroded; divers other parts of the brain were of a yellow colour.—*Ibid.* p. 108. (*Morgagni.*)

212. A man, about 40 years of age, had been for several years subject to pain in the right hypochondrium, which returned periodically; accompanied frequently with vomiting, and sometimes with delirium: he was also subject to frequent head-

aches. At last, shortly after excess in wine, the pain and vomiting reappeared, accompanied with heat about the head, delirium and convulsions ; and he soon died apoplectic. There was serum between the pia mater and the brain, and in the ventricles ; the liver was indurated.—*Ibid.* p. 111. (*Morgagni.*)

213. A porter, 40 years of age, very muscular, and having never, as he said, experienced any disease, died one night of apoplexy. P. M. The colon was throughout very contracted, except at its two extremities, where it was distended with air. The liver was indurated, and mottled on its surface. The gall-bladder contained some greenish black bile and some dark calculi of various forms. Valves of the venous side of the heart somewhat thickened. On the right hemisphere of the brain, under the pia mater, there was some extravasation of blood, and in its substance there was a large cavity filled with blood. The vessels of both cerebrum and cerebellum were much distended with blood.—*Ibid.* p. 113. (*Morgagni.*)

214. A female, 57 years of age, is seized with shivering and fever, succeeded by perspiration, and a sensation of pain and weakness in the body ; the same symptoms recurred twice daily ; on the second day the pulse was intermittent, but on the third the intermission disappeared. On the fifth and sixth days the fever returned, not twice only, but three times, and with very violent symptoms, such as difficulty of breathing, pain in the head, great thirst, and dryness of the tongue, which, however, preserved a good colour. On the seventh day the fever disappeared, the headache ceased, and the patient was able to make her own bed. She believed herself cured ; the pulse was sufficiently strong, but the countenance was somewhat cadaverous. She took her food well, but had more thirst than usual. She afterwards amused herself with another female, but scarcely had the latter taken her leave, when she was found dead in her room ; the bed was inundated with urine.

M. P. Stomach, intestines, and kidneys rather gorged with

blood of a fresh colour; the spleen flabby; the gall-bladder contained a little bile; lungs perfectly healthy; the right ventricle of the heart contained a small polypous concretion. On separating the brain from the spinal marrow, a thick serum escaped. There was a little serum in the ventricles: the brain itself was rather soft.—*Ibid.* p. 116. (*Morgagni.*)

215. A professor of the law in Bologne, the redness of whose face inclined to a livid colour, about 60 years of age, complained for a month of a pain in his stomach, which reduced his strength. He died suddenly of apoplexy. The vessels of the brain were found much congested; small quantity of serum under the dura mater, and a little softening of the substance of the brain. No examination was made of the abdominal cavity.—*Ibid.* p. 119. (*Morgagni.*)

216. A butcher, in the prime of life, rather fat, had suffered from an illness, after which he had lost some of his cheerfulness. However, he seemed to enjoy good health. On the 6th of August, 1788, without any apparent cause, unless from excess of nourishment, which he indulged in to the last days of his life, he was seized with an apoplexy which killed him. The omentum was very fat. Part of the small intestines speckled with livid spots. Spleen large and flabby; liver livid, hard, resisting the scalpel. Blood-vessels distended; small quantity of serum under the pia mater and in the ventricles.—*Ibid.* p. 119. (*Morgagni.*)

217. A peasant, after being the subject of numerous and cruel disappointments, was seized with severe fever in 1705. Some days after his admission into the hospital, the heat and dryness of the tongue appeared to diminish, pulse unequal; in a few days the pulse became worse and more feeble; eyes fixed and immoveable; the thirst continued, but this was all he complained of; and when asked about his complaints, he said he had no pain, but that his head felt heavy. About half an hour

after having made this answer, he died in the act of drinking. The abdomen contained some serous fluid; livid spots on the external membranes of the jejunum; ileum rather red, and somewhat indurated in two places; in one of them, I found an ulcer two fingers wide and three long, which had penetrated to the muscular coat; the liver was livid, but not to any great depth; the spleen flabby. The brain was very soft. Under the pia mater, there were in some places little bullæ. Some bloody serum in the lateral ventricles; the pleura and pericardium contained some serum; the heart was tender; the valves of the left ventricle were *hard*, almost ossified.—*Ibid.* p 120. (*Morgagni.*)

218. Mademoiselle B., aged 23 years, entered the Hôtel Dieu June 2nd, 1814, having had, she said, a dropsy, for which she had been tapped three times. She, however, acknowledged that she had been confined three months before, and that for two months she had experienced abdominal pain, accompanied with diarrhœa. For some days she had chills, followed by heat towards evening; pulse habitually small and frequent, tongue clammy. As she remained much in the same state, and had a sour taste in the mouth, an emetic was prescribed. An hour after she took it, she made considerable efforts to vomit, but discharged only mucous fluid; an hour afterwards, she had convulsions, with frothing at the mouth, and in half an hour more she had a fit of apoplexy. She was unconscious, without motion or sensation in the right half of the body; mouth drawn to the left; some convulsive movements manifested themselves, and were followed by paralysis. Leeches were applied to the neck, and sinapisms to the feet. Fifty-four hours after the appearance of the cerebral symptoms she died. On examining the body, traces of former peritonitis were found; the pelvis was full of flocculent pus. On the small intestines, the peritoneum was covered with fine granules of a whitish colour, as if tuberculous; the mucous membrane of the stomach was uniformly red; that of the small intestines

had numerous projections, and towards the ileo-cæcal valve a quantity of small ulcerations. The arachnoid covering the surface of the brain was whitish, and thickened towards the upper and outer part of the left middle lobe; the membranes were adherent to a small portion of the *brain*, which was *soft* and *diffluent*. There were four or five spoonfuls of serous fluid in the ventricles; the pleuræ also contained a large quantity of turbid serum.—*Ibid.* p. 122. (*Lallemand.*)

219. A young woman of good constitution was admitted into the Hôtel Dieu, on account of a pretended dropsy, for which she said she had taken a great deal of medicine. It was found to be a case of pregnancy, and the legs and thighs of a foetus were even discovered external to the vulva. The delivery was painful; no history could be obtained, because she persisted in denying her pregnancy even after her accouchement, but it is probable that culpable proceedings had been adopted. The following day the abdomen was painful, especially in the pubic region, the lochial discharge scanty, the countenance altered. (Twelve leeches to the vulva.) In the evening, an increase of the symptoms. (Emollient fomentations; laudanum, fifteen drops; lavements, and sinapisms to the feet.) At night a little better. On the morning of the third day, face discoloured, features contracted, air subdued, as if stupid, tongue mucous, body more supple and less painful. (Emetic.) In the evening there was a complete change; the patient had made considerable efforts to vomit, soon followed by *convulsions*, and *violent delirium*. Soon after, *stupor*, *general paralysis*, loss of consciousness and sensibility. (Sinapisms to the feet.) Died in the night.

Brain discoloured, without proper consistence; peritoneum covered with small red spots; some ounces of serum in the pelvis; stomach distended with a great quantity of gas, and a good deal of pure bile similar to what was in the gall-bladder. The mucous membrane, from the cardia to about three inches below, towards the great curvature, of a bright red colour and

turgid; and near the pylorus, to almost the same extent, it was as much injected and thickened, but mottled, and of a deep brown colour. The external genitals swollen, vagina thick and injected, internal surface of the womb of a violet-red colour.—*Ibid.* p. 125. (*Lallemand.*)

220. Daubenton, being elected a member of the senate, he partook hastily of a more hearty dinner than usual, in order to repair to the first sitting. It was very cold, and he felt it very much, notwithstanding all the pains he took to protect himself against it. Having arrived at the place of meeting, and placed near a large fire, he was received with every mark of esteem and veneration, which his moral character and great age (eighty years) could not fail to inspire. Some minutes after, he felt as if seized; he fainted, rejected part of his dinner, and was obliged to be taken home. He recovered his senses and his speech; but, by a singular illusion, he believed himself always at the senate; he was pale, mouth drawn to the right side, and the eyes shut as if from paralysis of the muscles of the eyelids; he suffered no pain. It was soon perceived that he had lost the use of his left arm and that side of the body. He remembered nothing of what had occurred to him, and did not believe that he was ill. An emetic was given to him the same night, and he rejected the rest of his dinner. He then had a purgative, and a blister to each leg. The next day, same state, involuntary stools, although the pulse had still some force. Nourishing broth every three hours, and in the intervals, some tonic and antispasmodic medicines. The following night pulse more feeble, swallowing difficult, rather comatose, respiration stertorous; some wine and restorative drinks were given, but could be swallowed only in an imperfect manner. Next day same prescription, and the evacuations still continued. In the evening he died. On opening the body, nearly two ounces of blood were found extravasated in the right ventricle.—*Ibid.* p. 129. (*Pinel.*)

221. A man, 40 years old, plethoric, and fond of free living, had been for some months subject to vertigo, and fell suddenly into the following condition: complete abolition of sensation and voluntary motion, pulse strong, respiration heavy with slight snoring. *Bleeding from the arm, then thirty leeches to the thigh*; feet and legs covered with sinapisms. At the end of three hours, slight movements were discovered in the limbs, the patient made some complaining sounds, increased by the action of the mustard, which caused considerable vesication. Some toast-water was given, but swallowed with difficulty. Seven hours after the attack, fifteen more leeches were applied to the thighs, and two glysters administered. The breathing remained heavy and stertorous, the pulse less full. Twenty-four hours after the attack, the patient articulated some words, recognised the assistant, and complained of violent pain in the head; he remained drowsy. Twelve leeches to the anus; a good deal of blood flowed, the drowsiness diminished, voluntary motion returned. On the fourth day, the headache and drowsiness returned; ten more leeches and refrigerating drinks. Convalescence rapid; the vertigo which returned from time to time was removed by pediluvia, leeches to the thighs, and a light vegetable diet.—*Ibid.* p. 132. (*Pinel.*)

222. S. a carrier, 26 years of age, not of strong constitution, and much addicted to drinking spirits, became intoxicated on the 12th of April, 1817, and went to bed. In the middle of the night he awoke, uttered a loud cry, and tumbled over the side of the bed. There was complete loss of power in the right side; considerable obtuseness of intellect; speech unintelligible, although the tongue could be moved and put out of the mouth; urine and fæces passed involuntarily. For three days the treatment was insignificant.

On the 15th admitted into St. Louis in the following state: countenance animated, eyes dull and vacant, right pupil dilated and insensible to light; tongue turned to the right when put

out of the mouth, and covered with a dry yellowish-brown crust; breath offensive, respiration easy, pulse slow and of fair strength; constantly in a sleepy state. Intellect dull; skin had retained its sensibility even on the paralysed side. (Emetic, two glysters, mustard pediluvia, and sinapisms to the feet.) In the evening face flushed, pulse stronger. (Twelve leeches to the anus, an emetico-cathartic.) Copious stools, no vomiting. On the fifth day, soporose, useless endeavours to speak. (Same state, same prescription.) On the sixth day, tongue more brown, no more stools. (Emetic.) Several liquid stools in the morning, fever very severe at night. Seventh day, movements feeble. (Tonic draught.) On the eighth and following days he was allowed some wine and broth; the same symptoms continued almost in the same degree; but the stools became firmer and less frequent, the tongue became moist, the febrile action continued, marked every evening by a general moisture, redness of the face, and more drowsiness. On the seventeenth day it was thought that the paralysis was the only thing left to treat, and the *nux vomica* was given until the dose was increased to six grains a day; it produced no other spasmodic movements than occasional trembling of the flexor muscles of the paralysed limbs. The patient, who, until then, had appeared to improve, by degrees relapsed into a state of coma, from which he could not be roused without difficulty. The intellectual faculties were annihilated; the speech, which had improved, became more embarrassed and unintelligible; the left side of the body lost almost entirely the power of motion; tongue almost black, alvine evacuations very fetid, irregular perspirations, excoriations over the sacrum, prostration, marasmus. Died on the 8th of June, fifty-three days after the commencement of the disease.

P. M.—Pia mater infiltrated with serum. In the left hemisphere there was a large abscess containing very fluid sero-purulent matter, without any trace of blood. This abscess occupied a large portion of the hemisphere, but did not penetrate into the ventricle. Some red spots on the mucous mem-

brane of the stomach, more numerous on that of the small intestines, especially towards their termination, where there were some greyish-looking ulcers.—*Ibid.* p. 138. (*Lallemand.*)

223. A female, after having been subject to giddiness for thirty years, became neglectful of her affairs, apathetic, as if stupid, and felt her limbs bend under her. Afterwards she had stupor, heaviness in the head, weakness of the limbs of the left side; answered questions properly, but with difficulty; mouth and tongue drawn on one side; alternately laughing and crying; pulse hard but not frequent. Blister applied to the arm, and an emetic; no vomiting or alvine evacuations; but the respiration became noisy, deglutition difficult, and hiccup appeared. On the two following days an emetic and purgative were given, which occasioned several evacuations; afterwards a blister to the neck, mustard pediluvia, friction with tr. cantharid. and purgative glysters. There was some amendment, but it was of short duration; for the limbs of the right side, which had hitherto been free, lost their sensation and motion; quinine, with other tonics, and purgative enemata were prescribed. The next day, purgative pills and some wine; she then became affected with vomiting, involuntary stools, continued drowsiness, snoring, &c.; and the pulse for the first time, became frequent. The intellectual functions were not entirely destroyed. On the two following days the symptoms increased, and the patient died. The right corpus striatum was a little softened, the left presented the same appearance, as well as the corresponding thalamus nervi optici. The mucous membrane of the stomach was covered with large spots of ecchymosis of a bright red colour, especially near the œsophagean orifice.—*Ibid.* p. 145. (*Lallemand.*)

224. The Marquis C., 28 years of age, was subject to pain in the head. A soothing regimen removed it. He shortly resumed his former habits, and the headaches returned. At last, he one day fell down senseless, and became hemiplegic on

the right side. Diluents and aperients were employed, but after a few days, an electuary, composed of canella, cascarilla, chicory, and valerian, was administered. Two hours after taking this medicine, he had an attack similar to the former one, followed by convulsive movements in the paralysed limbs; body distended, and affected with violent colic and frightful borborygmi. The symptoms were subdued by plentiful emollient drink (weak chicken broth) and some enemata. This plan was continued and the patient recovered.—*Ibid.* p. 148. (*Pomme.*)

225. A military gentleman, 86 years of age, about seven o'clock P. M. on the evening of his death, was irritated at the conduct of one of his servants, and he immediately fell down, being seized with profound sopor. His countenance became pale, his breathing stertorous, the mouth was drawn to one side, the pupils were dilated, and his pulse was weak. He was quickly seen by a physician and surgeon; blood-letting was performed, and cold water poured over his head, but he expired in a few minutes.

226. On the 10th of June, 1839, I was hastily summoned to attend my maternal grandmother, and on my arrival, I found her threatened with apoplexy. Her face was pale, pulse feeble, and she complained of vertigo and sickness. Her mother and sister both died suddenly of this malady. She was ordered:—*R.* Zinci sulph. \mathfrak{z} j. aquæ distil. \mathfrak{z} xij. *M.* ft. haust. stat. cap. In about twenty minutes vomiting ensued, and as soon as it had ceased, she took:—*R.* Pulv. jalap. gr. xvj. potass. tart. \mathfrak{z} ij. sp. ammon. a. \mathfrak{z} ss. inf. sennæ c. \mathfrak{z} vj. aq. piment. \mathfrak{z} vj. *M.* ft. haust. This produced free purging; the vertigo diminished, and at eight o'clock P. M. she fell asleep, and rose quite well on the following morning. Since this period she has had four similar attacks, and in all of them the above-mentioned treatment has been adopted with the same good result.—*Medical Gazette*, vol. xxxi. p. 291.

227. A certain citizen of Bologna, who was about 70 years of age, of a pallid countenance, had a difficulty of hearing, and was sometimes liable to vertigo and faintness. He had also a tremor, which was attributed to his having handled quicksilver for many years past. In other respects he was healthy and robust, so that he frequently indulged himself in sensual pleasures. Having the day before indulged in this kind of excitement, being very sprightly both in body and mind, he walked abroad with a friend, but scarce had he parted from his friend one hour and a half, when he was found dead in the road. We observed that the upper limbs were very rigid and contracted, and that even then there was a little heat about the right side, though twenty-four hours had elapsed since his death. The viscera and vessels of the thorax were all sound; the abdomen we did not open. In the head we observed the mouth to be drawn to the right side, and on the same side we also observed a large blackness, but whether from the blow in falling we could not discover. The blood in general was found very fluid, but there was no appearance in the skull or about it which corresponded with this external blackness. The brain was rather soft, flaccid, and discoloured, and in it some serum was found, but more on removing the dura mater than in the ventricles. The plexus choroides was beset with turgid vesicles, as it often is; and in the left vertebral artery were thin small plates, some resembling a tendinous, some a cartilaginous, and some a bony consistence.—*Medical Gazette*, vol. xxxi. p. 199. (*Morgagni*.)

228. A gentleman, æt. 40, was seized, soon after dinner, with sickness and giddiness. He fell down, and a hard sleep followed; but when stirred, in order to awaken him, he muttered and sometimes moved his limbs a little. It was evident that he was delirious, but his face was neither dilated nor relaxed, as is usual with those seized with the violent nervous apoplexy. An emetic was given which operated well, but without mitigating the symptoms; for I found him some

hours afterwards nearly as described; his pulse about 90, and full, but without the irregularity so manifest in a vehement apoplexy. Ten ounces of blood were removed, and five grains of James' powder directed every five hours, till his bowels should have acted. By the time that three doses had been given, this occurred freely, and he was apparently better. A similar procedure being continued, on the third day he was able to walk down stairs and read the papers, his pulse being reduced to 70; still a sleepiness remained. For the removal of this, cupping and blistering were recommended in consultation by another practitioner. When the surgeon came in the afternoon, the patient desired him to go up stairs with him to get the cupping business over; but it fatigued him; and when the blister began to operate, he became convulsed and delirious. A second blister was applied to the head during my absence, and when I saw him soon after, his countenance was relaxed and dilated, and death took possession in a few hours.—*Medical Gazette*, vol. xxxi. p. 201. (*Kirkland*.)

229. A healthy woman, aged about 30 years, near the full period of gestation, fell down suddenly; she instantly became insensible, and a stertor ensued, accompanied by a hard vibrating pulse, and violent convulsions; these returned periodically. Delivery occurred in a few hours; yet the symptoms of apoplexy remained unabated. Thirty drops of laudanum were given. Next morning, the insensibility, stertor, and convulsions remaining, after a clyster, which had a proper effect, twenty drops of laudanum were ordered every ten hours till the symptoms should abate. At the end of the third day advantage had manifestly been gained over the disease. In four days recovery appeared certain; it happened accordingly.—*Medical Gazette*, vol. xxxi. p. 201. (*Kirkland*.)

230. A lady, aged 26 years, had suddenly fallen into a state of complete insensibility, on which stertorous breathing rapidly supervened. In this state I saw her, about two hours from its commencement. She was delicate in figure and

appearance; of a bilious temperament with no sanguine intermixture; her confinement daily expected. I thought it expedient to have this lady cupped; and I gave her some aperients and some calomel, modifying the vigour of this treatment in relation to her present state and general constitution. Not the slightest benefit, nor indeed any very obvious change, resulted from these measures. In about thirty hours she was delivered easily of a living child, with no relief to her symptoms; in about twenty-four hours from that event she died.—*Medical Gazette*, vol. xxxi. p. 201.

231. A young married woman is taken in labour with her first child; after the pain has continued some hours, the membranes are ruptured; but through the ignorance of a female attendant, the pains are allowed to continue unassisted from Monday to the ensuing Friday morning. A surgeon is then called in. He finds the os uteri nearly dilated, and one of the superior extremities presenting. With difficulty and much loss of blood from the placenta, he delivers this patient of a living child. Meanwhile, namely, on the Thursday, first, violent pain in the head; next, dimness of sight, apoplexy, convulsions, and hemiplegia had occurred; and the latter symptoms continued unrelieved by delivery. Her pulse, when this occurred, was 130, full and vibrating. Twenty ounces of blood were taken from the arm, and soon after, fifteen from the temporal arteries. The first abstraction diminished the frequency of the pulse, the second abated the convulsions. In two hours more, the pupils continuing dilated, other ten ounces of blood were taken; and this was assisted by the action of aperients. By the eighth day the patient was convalescent, being entirely free from cerebral symptoms. — *Medical Gazette*, vol. xxxi. p. 202.

232. I was sent for to J. T., æt. 62, on the night of the 11th of November, 1841. I found him quite insensible; pupils much contracted; pulse about 60, and very low; extremities cold; right side of the body affected by convulsive movements,

which recurred at intervals of three or four minutes, and lasted about the same length of time. For the last two or three days he had been complaining slightly of pain in the head. He was removed to the Infirmary, where he arrived in a state of partial collapse; face and extremities of a pallid blue colour: pupils contracted and insensible to light; pulse slow and feeble, and the convulsions recurred with much force. As he appeared a strong muscular man, a vein was opened. The pulse improving, the bleeding was continued, until he had lost about fifty ounces. As soon as the pulse began to give way, the vein was closed. The symptoms continued in every respect the same, except that the natural heat of the body had been in some measure restored. He was then cupped on the temples. When he had lost about six ounces, the convulsions suddenly ceased, and the pupils began to dilate and contract irregularly. In a short time he started up in bed, endeavoured to mutter something, and looked about him in a bewildered way. The cupping was continued until he had lost twenty ounces; he was then sensible, but could not give a collected answer. The patient was afterwards brought under the influence of mercury; and in the space of a month he had entirely recovered.—*Medical Gazette*, vol. xxxi. p. 279.

233. A strong middle-aged man, went to bed one night in his usual health. His wife was awoke by his throwing out his arm suddenly and violently. She found him insensible, breathing stertorously. The pulse was not deficient in force. He was cupped to the amount of fifty-three ounces, and at once recovered entirely.—*Medical Gazette*, vol. xxxi. p. 279.

234. A large, full, healthy lady, aged 56, who had habitually endeavoured to obviate plethora, and head symptoms resulting from it, by large aperient doses, but never undergone venesection, was leaving her dining-room after her usual hearty dinner, when, having stooped to remove some dust from her

dress, on resuming the erect position, she complained of vertigo, and walked unsteadily through a gallery which led into the saloon. Soon excessive sickness came on, with some thickness of speech, and in a short time gradual indistinctness of thought and disposition to coma. A surgeon, who was on the spot, instantly bled her to about twenty ounces. In about three hours sixteen more ounces of blood were taken, a turpentine enema thrown up, and successive doses of calomel given. The pulse, which was oppressed, became softer; in the course of the next morning, the night having been passed in profound coma, it rose, and the coma somewhat diminished. She was then again freely bled till this action subsided, and with it the slight improvement in respect to coma. In the evening further depletion was resolved on. The coma still existed, with stertorous breathing, and blowing and puffing with expanded cheeks. She was again bled. The pulse instantly sunk, and she died in a few minutes.—*Medical Gazette*, vol. xxxi. p. 280.

235. Mr. P., a gentleman, aged 63, of a strong frame, and originally a good constitution, had filled a high legal office in India. Six years before he consulted me, he had undergone an attack of fever, in the course of which he was salivated, and continued in this state for a considerable time, with a gradual accession, under it, of nervous trembling, numbness of limbs, and occasional failure of thought and memory, and temporary confusion of mind. Under excitement there occurred a degree of irritability of the bladder, almost amounting to incontinence of urine, which was limpid and clear. His tongue was red and dryish, his appearance pallid and unhealthy. Pulse and action of heart normal, and there had never been œdema or ascites. I gave him mild aperients, and tincture of valerian in camphor mixture and compound aloetic decoction, allowing a moderate use of wine. On this plan his symptoms were mitigated. But about three months afterwards, I was sent for to see him under different circumstances. He had come up to London in

his usual health, eaten a moderate dinner, and gone to bed feeling comfortable; his mind clear and correct. In the night, sounds indicating dyspnœa attracted attention to his room, and he was found breathing stertorously in profound coma. In about two hours I saw him. His pulse told little. The coma was still complete, the pupils dilated, and little sensible to light; his skin generally warm. He was cupped to eight ounces, by which depletion his pulse sunk sufficiently to forbid its being carried further. Eight grains of calomel were laid upon his tongue, and sinapisms applied to his legs. A lavement also thrown up. No rally or improvement resulted. This was at four, A. M.; he died at half-past seven.—*Medical Gazette*, vol. xxxi. p. 282.

236. On the morning of the 18th of January, 1839, I was summoned in haste to a gentleman residing at a short distance from my house, who had been attacked with slight vertigo and confusion of thought whilst dressing. He was advanced in years, being upwards of seventy, and had spent great part of his life in India; he was low in stature, corpulent, and short in the neck. He had long been accustomed to high living, and had been the subject of chronic inflammation of the air passages. Not many months before the present attack, I removed two polypi from the nose, and, until within a very short period, he had profuse muco-purulent discharge from one nostril. I found him complaining of giddiness, and his conversation was incoherent. Pulse excited, but not very full; tongue furred; slight pain in right temple. I immediately drew about sixteen ounces of blood from the arm, and administered purgatives. He was slightly relieved by the bleeding, but in the course of the day he almost lost the power of expressing himself, his memory failed, and he was scarcely able to stand alone. I requested a consultation, and in the evening met an experienced practitioner from Norwich, who advised cupping; this was performed in his presence, and before many ounces of blood could be drawn, the patient had a convulsive start, be-

came faint, and it was feared a paralytic seizure was at hand. The cupping was immediately discontinued, and he was removed to a warm bed. He took pil. hyd. gr. v. at night, and had a blister applied behind each ear.

19th. His mental faculties very much confused, quite unable to express himself intelligibly. Slept tolerably during the night; pulse languid; tongue furred; bowels open. Capt. haust. salin. t. d.

20th. In much the same state. He made frequent attempts to speak, and appeared to know what he wanted, but I could not make out a word. It seemed to me that he might be speaking Hindostanee, or some Indian language that he had been accustomed to in former days; but his lady, who had also lived in India, could not at all understand him. Ordered a large blister to the nucha, and haust. salin. t. d.

21st. Slept well. Pulse soft and languid; bowels acting. Has taken no food, except gruel and thin broth, at present. Cont. haust. salin.

24th. No particular alteration occurred till this morning, when he made me understand that he felt sick, and had pain in the forehead. He could not recollect the name of any thing or person; for instance, the name of the gentleman who met me in consultation on the 18th, but he had some slight remembrance of the circumstance. A blister to the temple. Blue pill and rhubarb at night. Draughts as before.

25th. Pain removed from the forehead. Bowels free; tongue cleaner; pulse soft. More generous diet allowed. It is not necessary to enter into all the details of this case; suffice it to say, that as his general health improved, he regained the power of language; the first indication of this which I observed, was his asking me, at one of my visits, for some water, in Latin; he could not then recollect the English name of it. He improved each day in this respect until he could speak tolerably well. His memory, however, remained feeble; his eyesight, particularly in the right eye, was imperfect, as if the retina were partially paralysed; and owing to this failure of sight,

coupled with an incapability of directing his attention to any particular object for even a very short time, he found it impossible to write, or to attend to any business whatever. His hands also were tremulous, and the whole muscular system weak and unsteady, perhaps from not being sufficiently controlled by his debilitated brain. Several months elapsed before he appeared to be much stronger ; but at length his eyesight was restored, and his faculties in general became more perfect. His digestive organs were kept in order by small doses of blue pill and rhubarb, and saline draughts. In July he left home on a visit of some weeks' duration to some friends in a distant county ; and on his return might be said to have quite regained his usual state of health.—*Private practice.*

237. On the 5th of November, 1839, my attendance was suddenly required by the same gentleman (case 236) under the following circumstances. About three hours after a heavy dinner, he appeared to his family to be a little confused in his speech, asking for the same things several times over, and then forgetting what he had said. I was quickly on the spot, and found his manner hurried and confused ; his tongue furred, his pulse languid and feeble. His friends urgently requested me to bleed him, but considering the state of the pulse, I recommended in preference a purgative dose of medicine, and with some difficulty persuaded them to allow the bleeding to be deferred for the present. He took directly a calomel powder and a strong senna draught. About half an hour afterwards I was again summoned in a great hurry : after having taken his medicine he had been assisted up stairs, but as soon as he had seated himself in his easy chair he groaned, and fell forwards insensible upon the ground. I found him lying on the floor in profound apoplexy. Stertorous breathing ; cold skin ; face covered with cold perspiration ; great insensibility ; pulse very small and feeble ; no convulsive movements. Some remarks were made reflecting upon my not bleeding him on my first visit, inferring that if I had done so I might probably have

prevented the fit ; and in accordance with the wishes of the attendants I now opened a vein, but, as might be expected from the state of the pulse, not more than an ounce flowed. We then put his feet in hot water, applied strong hartshorn and aromatic vinegar to the nostrils, and endeavoured to make him swallow a little brandy and water, for I thought he was rapidly sinking, and would not live half an hour. The hartshorn, at length, caused a convulsive sigh, and by applying it most assiduously he was roused sufficiently to open his eyes, and raise his hand to his nose as if to prevent the further application of the stimulus ; it was, however, persevered in, and shortly after he showed signs of returning consciousness ; in a few minutes he became sick, and vomited the largest quantity of ingesta I ever saw rejected from the human stomach. The vomiting continued at intervals for a quarter of an hour, and roused him still more, so that he was able to recognise persons in the room, and to make inquiries as to what had been the matter : he said he felt very weak and ill, and we soon got him into a warm bed. An hour afterwards he was able to answer questions readily, and expressed himself extremely desirous of getting sleep. Gave a small quantity of brandy and water.

6th. Slept comfortably in the night ; pulse quiet ; skin perspiring ; tongue furred ; no complaint of languor and sickness. Took blue pill and rhubarb and senna draught during the day, which acted freely on the bowels. Could bear but very little muscular exertion ; breathing easy ; slept frequently during the day.

7th. Passed another good night, and awoke refreshed. Took a little tea and toast. No sickness or headache. Cont. haust. sennæ. The next day he was down stairs, conversing cheerfully with his family ; took gruel, meat broth, and pudding. Kept bowels free with senna draughts. I continued to see him daily till the 12th, when he was so well that I discontinued my attendance. Ten days afterwards I called again, and found him remarkably well, able to walk about his grounds, and to take drives in his carriage without fatigue. No dimness of sight

or paralytic affection [occasioned by this attack.—*Private practice.*

238. On the 30th of May, 1840, the subject of case 238 had another fit. He was seized with giddiness as he was coming down stairs, and shortly after he fell back in his chair insensible, his head dropping forwards upon his chest, and his face covered with cold perspiration; breathing stertorous, with discharge of frothy saliva from the mouth; loss of muscular power in the limbs; skin rather cold; pulse languid and labouring. A very few minutes elapsed before I arrived, and his lady pressed me much to bleed him forthwith, having already prepared bandage, basin, &c. for the purpose; but my experience of his former attacks, and a knowledge of his having been at a dinner-party the evening before, determined me not to bleed; and although the number of hours which had elapsed since food was taken seemed to point out that vomiting was not likely to afford relief as in the second attack, which occurred soon after a meal, yet I resolved to empty the stomach; and having applied strong hartshorn to the nose to rouse him, managed to pour down his throat a draught of senna containing a scruple of ipecacuan powder. His feet were put in hot water. In about a quarter of an hour he appeared gradually to regain his consciousness, and asked in a hurried manner whether he had been ill. He said he felt sick, and must go to bed, but he was not allowed to move. He soon began to recognise his attendants, and asked them what was the matter. Whilst sensibility was thus returning, and before vomiting commenced, a curious phenomenon occurred. He was sitting with his head resting upon his hand, and his elbow supported by the arm of the chair; and whilst in this position he had frequent twitches of the trapezius muscle, pulling the head towards the shoulder. I observed at the same time similar convulsive movements, synchronous with the former, of the rectus externus oculi, turning the eye towards the outer canthus. After he had vomited, these twitches ceased, and the powers of

the brain seemed much restored: he vomited a second time, and then appeared perfectly sensible of everything that was passing; breathing became natural; took some aperient pills and senna draught, and lay in a recumbent posture on a sofa. The medicine soon acted powerfully upon the bowels, and in a few hours he was sufficiently recovered to read a letter written in a rather illegible hand. In a few days he was quite well, and has remained in good health to the present time.—*Private practice.*

239. On the 3rd of February, 1841, this gentleman was again attacked with vertigo, followed by insensibility of at least half an hour's duration. He was roused a little with strong hartshorn, and made to swallow an ipecacuanha draught as formerly, which produced vomiting and a gradual return of sensibility. His bowels were afterwards kept free with senna draughts, and he recovered in a few days.—*Ibid.*

240. On the 24th of June, 1842, I was sent for to visit a lady, between nine and ten o'clock. The message was urgent; and I found her labouring under a fit of apoplexy. She was lying on her back, in bed, with the head stretched out backwards, the skin hot, breathing stertorous, grinding of the teeth, pulse full and resisting. When I touched the soles of the feet, she was sensible of it, but I could not rouse her to speak. Pupils dilated, and insensible to the light of a candle. For the last few weeks her servants have observed her to drag the right leg upon the ground in walking. She went up to bed tired and unwell, but had been much as usual during the day. Had been subjected to some mental excitement in the evening. After being up stairs a short time, she rang the bell for the servant, who found her sitting in a chair, unable to give her any directions. Soon after, she vomited a little, was assisted into bed, and able to tell her servant she had a great deal of pain in her head, and wished to lie down. Soon after lying down, she had convulsive movements in her arms and the mus-

cles of the face. I was immediately summoned, and found her in the state I have described. From the state of her pulse and skin, her age (forty-three), and a feeling that almost any surgeon would think it right to bleed, I opened a vein, and drew about eight ounces of blood. The pulse rose, was quite free, and became more rapid without losing its power; but the skin cooled, and I determined not to allow more to flow. The grating of the teeth ceased, and I endeavoured to make her swallow some aperient medicine, but as soon as it was in her mouth it excited vomiting, and she ejected some undigested food from the stomach. She now breathed without stertor; pulse of fair strength, and about 80. The vomiting was followed by general perspiration; she attempted to raise herself in bed, opened her eyes, but could not speak. Mustard poultices to the feet were then applied, and I waited awhile to watch the effects of the treatment.

At one A. M. she was more roused, answered several questions, and expressed by signs a desire to pass urine, which she did in fair quantity. A second attempt to give her medicine again produced vomiting, and was not persevered in, as she seemed tired, and the skin was becoming cool.

25th, nine A. M. Asleep, but breathing slowly, without stertor; pulse much weaker, 72; had been more sensible early in the morning, and had swallowed a pill, which acted on the bowels half an hour before I visited her: countenance pallid; was unwilling to be roused, and very languid; skin warm; frothy mucus in the mouth. Empl. lyttæ. nuchæ. catapl. sinap. cruribus. Gave a little barley-water, which the stomach soon rejected.

One o'clock. Much the same; fresh sinapisms to the feet, the others not having had any effect. Met a physician in consultation, who advised the head to be shaved, and five grains of calomel to be given directly. Seven, P. M. Still drowsy, but sensible when roused; swallowed a draught of inf. sennæ and potass. tart. Bowels not open; breathing natural; pulse 80; scalp hot. Blisters to the calves of the legs.

26th, nine A. M. Removed and dressed the blisters. Scalp

hot, and skin warmer than yesterday ; pulse 80, of fair strength. Appears conscious of what is being done for her, but cannot articulate ; has pain in the head ; breathing natural ; tongue loaded ; no relief from bowels ; was raised up in bed, and drank some tea ; seemed tired with the exertion. Catamenia appeared yesterday morning. Eleven P. M. Breathing more difficult ; but during my visit the bowels were relieved, and the breathing again became free.

27th, nine A. M. Skin warm ; pulse 86 ; scalp hot ; slight stertor. Swallowed another purgative draught and some barley-water, but with difficulty. Two P. M. Bowels relieved again ; no stertor ; pulse 80, more feeble. Nine P. M. Blister to left side of the head, where she gave signs of pain. Took three grains of calomel.

28th. Passed a restless night, and at five o'clock A. M. had a violent convulsion : much annoyed by the blister, which I removed. Between this and noon she had eleven attacks of convulsions ; the breathing became difficult, the countenance purple, and the pulse 144. It seemed as if some fresh mischief to the brain had occurred, and that the case had become hopeless. In the evening I found she had been free from convulsion for some hours, and had been almost incessantly moving from side to side with all the regularity of an automaton. A little wine and water had been given. The breathing was easier, and the pulse dropped to 100.

29th. Passed a quieter night, and is more sensible to-day than she has been yet. No relief from bowels ; no power of speech, rather more of swallowing ; has taken a little wine and water and mutton broth ; skin cool ; pulse 70 ; tongue furred ; knows persons in the room ; lies in a calm quiet state, with no expression of suffering. Ten P. M. At three o'clock this afternoon the muscles of the face became convulsed, and remained so six hours without interruption, but the limbs were quiet ; the heat of skin increased considerably, and the pulse rose to 100 ; no relief from bowels ; breathing impeded. Cold water to the head, and a purgative injection (which soon returned)

cooled the surface ; the pulse is now 84, and the convulsions have ceased.

30th. No return of convulsions ; more conscious to-day than at any previous time since her illness ; swallows better ; skin too warm, and face flushed ; pulse 80 ; no relief from bowels. Two injections have been given to-day without effect. Nine P. M. Bowels freely relieved ; was much cooler in the afternoon.

July 1st, nine A. M. The physician who attended with me was willing to confine the treatment to a repetition of purgative enemata. Pulse 80 ; more consciousness ; no paralytic affection of limbs ; articulation and power of swallowing improved. Nine P. M. Has had two injections, and bowels relieved twice. She is now cool, and gradually improving. Pulse 70, soft ; no pain in the head.

2nd, nine A. M. Slept several hours ; breathing quite easy and natural ; takes mutton broth ; pulse 80 ; consciousness and articulation more perfect ; bowels relieved twice, the last motion of a healthy colour and consistence ; all that had passed previously were dark and offensive ; skin cool.

3rd. Slept nearly ten hours. Speaks better ; swallows well. Purgative injections repeated daily.

6th. Improving. Head shaved again.

7th. Bowels acted well this morning of their own accord.

8th. Sat up in a chair for an hour. Took a pint and a half of meat broth, with bread, in the course of the day.

13th. Injections continued ; bowels acting well ; pulse 80 ; skin cool ; begins to take solid animal food ; is quite sensible, and articulates pretty well.

14th. Is quite cheerful to-day. Applied caustic for an issue on the arm.

24th. Got down stairs to-day, and remained there some hours. No paralysis ; issue discharging ; all going on well.

September 20th. Is drawn about her garden daily, weather permitting, in a chair upon wheels. Bowels acting ; issue dis-

charging; and in every respect as well as before her illness. Catamenia appearing regularly.—*Private practice.*

241. Mr. S., a stout farmer, 80 years of age; joints of his fingers and toes filled with gouty concretions; was attacked on the evening of the 17th of May, 1842, with symptoms of apoplexy. I found him comatose, unable to articulate, almost unconscious of efforts made to rouse him; pulse slow and full; breathing heavy. Blister to the neck; cold lotion to the head; a dose of croton oil to act on the bowels, which had been sluggish for some days. Next day he became more sensible, but much inclined to coma, with a bloated countenance and heavy pulse. My assistant ordered four leeches to the temples, and blisters behind the ears.

20th. Quite sensible; bowels open; has no paralysis.

22nd. Passed a restless night and is irritable. Purgative mixture, and a morphia draught at night.

23rd. Slept well, and is better. Cured. *Ibid.*

242. M. F., æt. 80 years, a spare active old woman, was attacked on Friday, November 5th, 1841, just after a hard day's work at the wash-tub, with pain in the head, quickly followed by total insensibility. Next day I was sent for, and found her in profound apoplexy. Stertorous breathing; bronchial rattle; total insensibility. She had been in this state all night. Not able to swallow; pulse feeble. Empl. lyttæ. amplum. nuchæ. Mustard poultices to the legs.

7th. Blister drawn. Can now be roused so as to answer questions distinctly, and can move the right leg and arm; left side appears to be paralysed. Has taken some gruel and castor oil.

8th. Same as yesterday. Bowels not relieved. Mist. cathart. 4tis horis.

9th. More drowsy to-day. Bowels not open.

10th. Died.—*Ibid.*

243. Ann Ellis, 75 years of age, seized with apoplexy May 17th, 1842. I found her quite insensible; breathing very much impeded with mucous rattle; surface pale, cold, and clammy; pulse almost imperceptible: she seemed to be within a few minutes of her death. I ordered a little warm brandy and water, and left the house, not expecting to see her again. She, however, rallied, and recovered her sensibility to some extent until the 25th, when she again became comatose, slightly convulsed, and died.—*Private practice.*

244. On the morning of the 13th of October, I was summoned to attend Mrs. A., whose case I have already related (No. 240). She had been subjected to more excitement than usual, made two or three calls the day before, and afterwards dined off food not easy of digestion. About five o'clock A. M. she awoke her husband by grasping his hand, but could not speak. She rallied a little, and was assisted out of bed to the night-chair. The bowels were relieved; and, as she became drowsy and slightly convulsed, I was sent for. She was comatose, with rather full pulse and perspiration. Drew up her legs when I tickled her feet. Could not rouse her; but during my attempts to make her speak her face became horribly distorted, and she had a severe general convulsion of some minutes' duration; she remained quite comatose after the convulsion had subsided. I applied cold cloths to the scalp, and gave a strong purgative injection. In three hours I visited her again: the coma had remained about an hour after I had left, and the bowels had acted freely; she had vomited a little bilious matter; there had been no more convulsion. She could now articulate tolerably well, and was sensible enough to ask me to dress her issue; she had chilled once or twice, and removed the cold application from her head; and when her arm was uncovered during the dressing it became cold, and all "goose flesh." In the evening another injection was given; she was more sensible; but the tongue was foul, and she com-

plained much of pain in the head. Cold vinegar and water to the forehead.

15th. Another injection, followed by relief from the bowels, and perfect restoration of her senses ; pulse quiet, tongue much cleaner. Ate some breakfast, and was well enough to settle wages with a servant who was about to leave.—*Private practice.*

245. A. B., a large, full, healthy-looking man, aged 54, in the spring of 1843 was brought into the infirmary in a state of insensibility, and died almost immediately. It appeared that he had been employed in the workhouse in bodily labour, and seemed in good health up to the moment of his seizure with apoplexy that morning. He was described as having the day before eaten an enormous dinner of pork, &c. He went to bed apparently well.

Autopsy. The membranes of the brain were healthy, but the convolutions flattened. A very large coagulum, with some fluid blood, distended the lateral ventricles. The basilar artery was of great size ; slight appearances of ossification in many arteries of the brain. The aort was of great size, but healthy ; the heart normal. The right lung almost uniformly in a state of red hepatisation ; portions from every part of it sinking in water. The left lung gorged with blood, but perfectly crepitant. The stomach very large ; no solid contents in it : its walls thin ; its surface having a colour exactly similar to that of coffee-ground vomiting. The other viscera healthy.—*Med. Gazette*, vol. xxxiv. p. 15.

246. In a patient who died on the 15th of March, I observed the following appearances on examination the next day. In the upper and anterior part of the right lateral portion of the brain, the first slice removed from it disclosed a very large sanguineous effusion, connected with and filling the right ventricle, and a part of the left. Between it and the cortical substance, to which it was nearly subjacent, the small intervening

portion of medullary substance was softened; and in this softened substance was a large branch of an artery. Whether the patent mouth of this artery was the breach through which the blood had flowed, or whether it had been divided by the knife, I cannot say. It grated under pressure, and contained small osseous points. The heart was normal, as were the aortic valves. In the arch of the aorta were small osseous deposits. The right lung was uniformly and firmly hepatized, of a deep red colour, all but a portion of the upper lobe, which was emphysematous. All the other viscera were healthy. On inquiry, I found that this man, aged 78, of a very muscular frame for that age, had been sent into the infirmary from the workhouse, on the morning of the 12th, in a state of imperfect coma, having been apparently well the night before. Except during the last twenty-four hours of his life, he could be roused so far as to answer questions. It was ascertained that he had been in a state of constipation for many days, and the nurse of the ward told me that he was known to be a very large eater. Some calomel and jalap had been given him on coming in, and afterwards a drop of croton oil. His bowels were then largely relieved, with no mitigation of apoplectic symptoms. He vomited, only in the course of the last day, what appeared to the nurse to have a fœcal character.—*Medical Gazette*, vol. xxxiv. p. 15.

247. William Lawrence, æt. 50, until lately master of a workhouse, of full habit, with frequent bilious symptoms and foul breath, was journeying in a neighbouring county, and became affected with vertigo and difficulty of articulation on Sunday, May 21st, 1843. He was bled by a surgeon at Swaffham, and, being relieved, went to Lynn the next day. On Tuesday, the 23rd, whilst walking in the street, the same symptoms returned, and after a few minutes he fell down insensible. A surgeon advised a repetition of the bleeding, but his wife objected, and the treatment was confined to purgatives and a blister to the nucha, which appeared soon to relieve him. On the following Saturday he came home, a distance of more than forty miles,

and on Sunday, 28th, he consulted me, who had been his frequent medical attendant. I found him stouter than he was a few weeks before, but his face was pallid, tongue furred, expression vacant, right side of mouth slightly paralyzed; pulse quiet and steady. Breath offensive. Calomel gr. v. at night. Blister to the arm; salts and senna next day to relieve the bowels.

30th. Bowels freely relieved; lips and countenance more natural. Pulse quiet. Cont. med.

June 1st. Bowels open, and in all respects better. Takes walking exercise every day.

Sunday, June 4th, four o'clock, A. M. About an hour ago, was attacked with twitchings in the limbs, snoring, and partial insensibility, soon after using the night-chair. He was roused by his wife, but soon after, on falling asleep, had a return of convulsive movements in the limbs. He had made attempts to vomit, and passed urine, himself asking for the chamber-vessel. I found him asleep, but had no difficulty in rousing him. Pupils natural; pulse full and quick. General pain in the head, but not severe. No paralysis, but speaks as if he had something in his mouth. Still very sleepy; feels sick; full diaphoresis. Blister to the calf of each leg. A draught with inf. sennæ and ℥ii. vin. ipecac. In about an hour he vomited some bilious matter, and had a relief from the bowels. Calomel gr. iv. statim. Mist. magnes. sen. gent. ℥j, 4tis horis. Six P. M. Walked half a mile to a friend's house to tea, and back.

5th. Bowels acting, but not very freely. Passed a better night, but was slightly delirious and excited after dinner. Has been at work in his garden to-day. No pain in the head; no paralysis. Pulse good. Cal. gr. ii. ext. coloc. c. gr. x. h. s. s. Rp. potass. tart. ℥j., inf. sennæ ℥iv., dec. aloes c. ℥iiiss., syr. rhamni ℥ss.; ℥j. 4tis horis donec alvus bene respond.

28th. Made an issue in the arm. Health pretty good. No return of head symptoms. Takes aperient medicines two or three times a week.

July 16th, Continues well. Issue discharging. Takes aperients occasionally.—*Private practice.*

248. A robust and rather plethoric woman, 38 years old, was in perfect health and speaking to a neighbour, when her servant girl frightened her by brandishing a bright spiral wire over her head, so as to make it look as if a snake were falling on her. In her fright the woman suddenly fell down in an apoplectic fit, and remained for some time nearly unconscious. When examined, she complained of a noise and beating in the left side of the head, deafness of the left ear, and of blindness and loss of taste on the same side. She could not move any part of the left side of the body, and in every respect resembled a patient suffering from hemiplegia in consequence of sanguineous apoplexy. By active antiphlogistic treatment, and various other measures, she was gradually restored from this state in about three months.—*Medical Gazette*, vol. xxvii. p. 672.

249. A young man, 25 years of age, after complaining for a few days of a feeling of heaviness and slight headache, perceived a numbness in his left arm, which, however, did not prevent him following his occupation as usual. In the evening he was suddenly seized with giddiness and paralysis on the left side of the body, and fell to the ground; he did not, however, altogether lose consciousness, but the articulation of sounds was lost. When taken to the hospital, twenty-four hours afterwards, it was ascertained that there was complete insensibility of the limbs on the left side of the body, and the patient could scarcely command the slightest motion in them. The commissure of the lips was drawn to the left side, and the tongue, when thrust out of the mouth, pointed to the same side. He could not close the right eyelid, and the pupil of that eye was much more contracted than that of the left. The paralysis progressively diminished till about the tenth day, when cramps and sensations of formication began to be experienced in the

affected limbs, with ringing in the left ear. Delirium soon after came on; the left arm was attacked with erysipelas and serous infiltrations, and he died about forty days after the accident. Within the substance of the tuber annulare, on its right half, but passing a little beyond the median line towards the left side, was found an abscess of about the size of a chestnut. It was well circumscribed, and the surrounding substance presented its ordinary firmness and colour. The left ventricle of the heart was considerably hypertrophied.—*Medical Times*, vol. v. p. 60.

250. Mr. S——, a middle-aged farmer, industrious, temperate, and generally healthy, attacked with confusion and loss of memory, and occasional giddiness. Pulse slow and languid. Was treated with blistering and mercury without benefit. Complained of pain over the left ear. Blisters repeatedly applied over the spot, and gave relief. Leeches were tried, but seemed to have no other effect than that of lessening his bodily strength—they were applied only twice. Soon after, he became unable to leave his bed; and although he understood all that was said to him, he could not articulate distinctly. His legs became œdematous, and he had pain in the right limbs. His mouth was generally full of water. He was now treated upon a tonic plan. Took decoction of aloes and quinine, and was allowed meat diet and small quantities of wine. The œdema was removed, and his strength was sufficiently restored to enable him to sit up and walk about his room. The pain in the head was controlled by repeated blistering; occasional pains in the chest and abdomen were removed by the same means. Sometimes he appeared to be getting well, and then got worse again. Appetite good. Bowels and bladder act well.

In this condition he remained for a considerable time. He was always sensible, though drowsy, but could not articulate two or three words in succession, and never attempted to speak except when spoken to. About a week before his death, he became much more feeble, especially on the right side, and at last became

hemiplegic on that side. He was not comatose till within a few hours of his death. His illness, such as I have described it, lasted from August 23rd to November 9th, 1841, and his symptoms were more severe and serious during the first three or four weeks, than at any future period till the week before he died.

Sect. cadav. Gland. pacch. very large and numerous. Sinuses and veins on the surface of the brain much congested. He had been laid for some hours in his coffin, with the head lower than the chest. Good deal of serum in the ventricles. Choroid plexus pale and bloodless. Substance of the brain generally firm and healthy, but free from red points. Near the surface of the middle lobe of the brain, where it corresponds with the left temporal bone above the ear, was a tumour of firm consistence, and marked like a scirrhus, and above and around it, the brain was softened to the consistence of cream to the extent of two or three inches.—*Private practice.*

THE END.

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